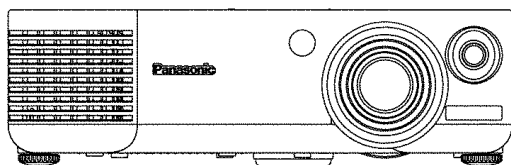


Service Manual

LCD Projector

PT-AE900U
PT-AE900E



Panasonic

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The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service Manual.

Specifications

Power supply:

100 V - 240 V AC, 50 Hz / 60 Hz

Power consumption:

180W [During standby (when fan is stopped):

Approx. 0.08 W]

Amps:

2.2 A - 1.0 A

LCD panel:

Panel size (diagonal): 0.7 type (17.78 mm)

Aspect ratio: 16:9

Display method: 3 transparent LCD panels (RGB)

Drive method: Active matrix method

Pixels: 921 600 (1 280 × 720) × 3 panels

Lens:

Manual zoom (2x) / Manual focus

F 1.9 - 3.1, f 21.7 mm - 43.1 mm

Lamp:

UHM lamp (130 W)

Luminosity:

1 100 lm

Scanning frequency (for RGB signals):

Horizontal scanning frequency: 30 kHz - 70 kHz

Vertical scanning frequency: 50 Hz - 87 Hz

Dot clock frequency: 108 MHz or less

YPbPr signals:

525i (480i), 525p (480p), 625i (576i), 625p (576p),
1 125 (1 080)/60i, 1 125 (1 080)/50i, 1 125 (1 080)/24p,
750 (720)/60p, 750 (720)/50p

Color system:

7 (NTSC / NTSC 4.43 / PAL / PAL-M / PAL-N / PAL60/
SECAM)

Projection size:

1 016 mm - 5 080 mm

Throw distance:

1.2 m - 12.4 m

Screen aspect ratio:

16:9

Installation:

Front / Rear / Ceiling / Desk (Menu selection method)

Connectors:

S-VIDEO IN: Single-line, Mini DIN 4-pin
Y 1.0 V [p-p], C 0.286 V [p-p], 75 Ω,

VIDEO IN: Single-line, RCA pin jack
1.0 V [p-p], 75 Ω

PC IN:

RGB: Single-line, D-sub HD 15-pin (female)

R.G.B.: 0.7V [p-p], 75Ω

G.SYNC: 1.0 V [p-p], 75Ω

HD/SYNC: TTL high impedance, automatic
positive/negative polarity compatible

VD: TTL high impedance, automatic
positive/negative polarity compatible

COMPONENT IN :

Y, Pb/Cb, Pr/Cr (for PT-AE900U):

Dual-line, RCA pin jack × 3

Y, Pb/Cb, Pr/Cr (for PT-AE900E):

Signal-line, RCA pin jack × 3

Y: 1.0 V [p-p] (Including sync), 75Ω

Pb, Pr (Cb, Cr): 0.7 V [p-p], 75Ω

HDMI IN : Single-line, 19-pin HDMI connector

SCART IN (PT-AE900E only):

Single-line, 21-pin SCART connector

S-VIDEO: Y:1.0 V [p-p], C:0.286 V [p-p], 75Ω

VIDEO: 1.0 V [p-p], 75Ω

RGB: R.G.B.:0.7 V [p-p], 75Ω

SYNC.:0.3 V [p-p], 75Ω

SERIAL: DIN 8-pin RS-232C compatible

Cabinet:

Molded plastic (ABS / PC)

Dimensions:

Width: 335 mm

Height: 104 mm

Length: 270 mm (Not including lens)

Weight:

3.6 kg

Operating environment:

Temperature: 0° C - 40° C

(When "FAN CONTROL" is set to "HIGH": 0
° C - 35° C)

Humidity: 20 % - 80 % (no condensation)

Certifications:

PT-AE900U: UL60950, C-UL, FCC Class B

PT-AE900E: EN60950, EN55022, EN61000-3-2,
EN61000-3-3, EN55024

<Remote control unit>

Power supply:

3 V DC (AA battery × 2)

Operating range:

Approx. 7 m

(when operated directly in front of signal receptor)

Weight:

170 g (including batteries)

Dimensions:

Width: 52 mm

Height: 28.5 mm (Not including the projection parts)

Length: 200 mm

Accessories:

Remote control unit (EUR7914Z20): 1

AA batteries for remote control unit (× 2): 1

Power cord: **PT-AE900U:** K2CG3FR00001 1

PT-AE900E: K2CT3FR00003 (U.K) 1

: K2CM3FR00002 1

(continental)

Options:

Ceiling bracket: ET-PKE700

Ceiling bracket: ET-PKE300

(for low ceilings)

Projection Screen: ET-SRW90CT

Serial adapter: ET-ADSER

(DIN 8-pin/D-sub 9-pin)

• Specifications are subject to change without notice.

• Weight and dimensions shown are approximate.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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 - S-VGA is a registered trademark of the Video Electronics Standards Association.
 - HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- All other trademarks are the property of the various trademark owners.

Precaution

If using this projector at high elevations (above 1 400 m), set the FAN CONTROL to HIGH. (Refer to "Option settings" in Operating Instructions.)

Failure to observe this may cause malfunctions.

Never use this projector at an elevation of 2 700 m or higher.

Using this projector at high elevations, consult your dealer or Authorized Service Center about preparations.

About lead free solder (PbF)

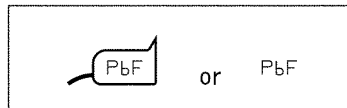
This projector is using the P.C.Board which applies lead free solder. The use of lead free solder is recommended from the standpoint of antipollution for the global environment in service.

Notes:

- Lead free solder: Sn-Ag-Cu (tin, silver and copper) has a higher melting point (approx. 217°C) than standard solder. Typically, the melting point is 30°C to 40°C higher. When servicing, use a high temperature soldering iron with temperature limitation function and set it to 370±10°C.
- Be precautions about lead free solder: Sn-Ag-Cu (tin, silver and copper) will tend to splash when heated too high (approx. 600°C or higher).
- Use lead free solder for the P.C.Board (specified on it as "PbF") which uses lead free solder. (When you unavoidably use lead solder, use lead solder after removing lead free solder. Or be sure to heat the lead free solder until it melts completely, before applying lead solder.)
- After soldering to double layered P.C.Boards, check the component side for excess solder which may flow onto the opposite side.

About the identification of the lead free solder P.C.Board

For the P.C.Board which applies lead free solder, the symbol as shown in the figure below is printed or stamped on the surface or the back of P.C.Board.



For US

IMPORTANT SAFETY NOTICE

There are special parts used in Panasonic LCD Projectors which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY.

WARNING:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any unauthorized changes or modifications to this equipment will void the users authority to operate.

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1 Safety Precautions

1.1. General Guidelines

- For continued safety, no modification of any circuit must be attempted.
- Unplug the power cord from the power outlet before disassembling this projector.
- Use correctly the supplied power cord and must ground it.
- It is advisable to use an isolation transformer in the AC power line before the service.
- Observe the original lead dress during the service. If a short circuit is found, replace all the parts overheated or damaged by the short circuit.
- After the service, all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations must be properly installed.
- After the service, check the leakage current to prevent the customer from getting an electric shock.

1.2. Leakage Current Check

1. Prepare the measuring circuit as shown in Fig.1.

Be sure to use a voltmeter having the performance described in Table 1.

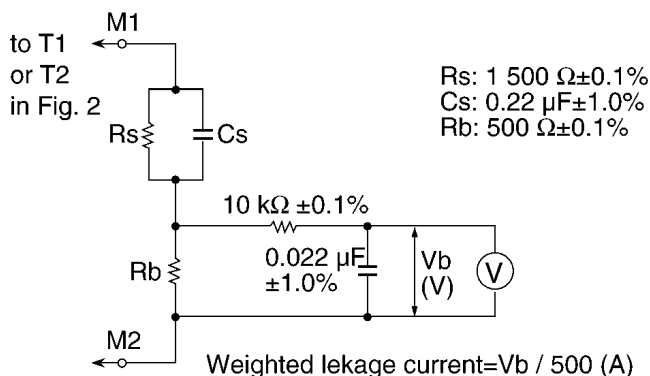


Fig. 1

	Performance
Voltmeter (rms reading)	Accuracy: $\leq 2\%$
	Input resistance: ≥ 1 M Ω
	Input capacitance: ≤ 200 pF
	Frequency range: 15 Hz to 1 MHz

Table 1

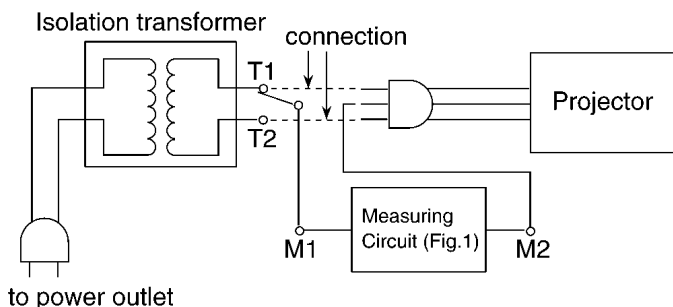


Fig. 2

2. Assemble the circuit as shown in Fig. 2. Plug the power

cord in a power outlet.

3. Connect M1 to T1 according to Fig. 2 and measure the voltage.
4. Change the connection of M1 from T1 to T2 and measure the voltage again.
5. The voltmeter must read 0.375 V or lower in both of steps 3 and 4. This means that the current must be 0.75 mA or less.
6. If the reading is out of the above standard, the projector must be repaired and rechecked before returning to the customer because of a possibility of an electric shock.

1.3. UV Precaution and UHM Lamp Precautions

- Be sure to unplug the power cord from the power outlet when replacing the lamp.
- Because the lamp reaches a very high temperature during its operation, wait until it cools completely when replacing the Lamp Unit.
- The lamp emits small amounts of UV-radiation, avoid direct-eye contact with the light.
- Because the high pressure lamp involves a risk of explosion, never touch the lamp wire lead during the service. (See Fig. 3)

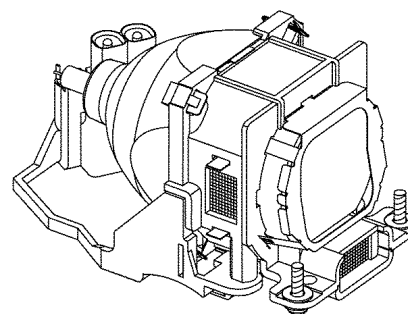


Fig. 3

2 Ext Option

This projector has EXT OPTION in addition to standard on-screen menus.

- There are SELF CHECK and FLICKER ADJ for service, etc.

2.1. Procedure to enter EXT OPTION

1. When the projector is power ON, press "POWER" button on the main unit or remote control unit to display "POWER OFF" confirmation screen.
2. Press the right-arrow " ► " button to select "CANCEL" in the "POWER OFF" confirmation screen.
3. On the main unit or remote control unit, press the buttons in order of up-arrow " ▲ ", down-arrow " ▼ ", up-arrow " ▲ ", down-arrow " ▼ " and "ENTER".

(When the "ENTER" button is pressed, "EXT OPTION" menu is displayed.)

2.2. EXT OPTION Menu and Functions

EXT OPTION	
FAN FULLMODE	OFF / ON
AUTO SETUP	NORMAL / SPECIAL
SELF CHECK	
FLICKER ADJ	
525i SD	OFF / ON
525p OS	OFF / ON
HPLL	OFF / ON

• FAN FULLMODE

Setting the cooling fan motor rotation speed

- Switching ON "FAN FULLMODE", the rotation level of the fan becomes high-speed rotation (fixed). Moreover, when "FAN FULLMODE" is ON, changing "FAN CONTROL" in OPTION becomes impossible (setting FAN FULLMODE is given priority more than FAN CONTROL).

• AUTO SETUP

Setting AUTO SETUP mode

- NORMAL: To set the normal mode (the dot clock is adjusted strictly)
- SPECIAL: To set the special mode (the dot clock is adjusted roughly)

* Do not change the initial setting (NORMAL).

• SELF CHECK

To enter the self-check mode

• FLICKER ADJ

To enter the flicker adjustment mode

• 525i SD

When non-standard signal of 525i/625i is inputted (AV amplifier, etc.), synchronization might be disordered according to connected equipment. In this case, set 525i SD to ON.

• 525p OS

When 525p/625p signal is inputted, reflection noise (vertical striated beat) might be generated according to connected equipment. In this case, set 525p OS to ON. However, the resolution decreases a little.

• HPLL

When non-standard signal of VIDEO/S-VIDEO is inputted (VCR, VHD, etc.), horizontal synchronization might be disordered according to connected equipment. In this case, set HPLL to OFF.

2.3. Canceling EXT OPTION

Press "MENU" button on the main unit or remote control unit.

3 Self-Check Mode

This mode is used to narrow down the location of the failure.

3.1. Procedure to enter the self-check mode

Select "SELF CHECK" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

3.2. Self Check Display and Contents

Display example

	SELF CHECK			
①	MM: 1.00	F: 1.00	IM: 1.00	
②	XGA 60			
③	H ***.***KHz	G SAVED	OK	⑰
④	V ***.***Hz	U SAVED	OK	⑱
⑤	6130	OK		
	R: OFF	G: OFF	B: OFF	
⑥	IRIS	OK	FAN	OK ⑲
⑦	FAN1	OK	FAN2	OK ⑳
⑧	FAN3	OK		
⑨	TEMP	OK		
⑩	TEMP1	***	TEMP1	*** ㉑
⑪	TEMP2	***	TEMP2	*** ㉒
⑫	LAMP	OK	2000H	OK ㉓
⑬	TOTAL	****H	RESET	*** ㉔
⑭	****H**	****	****H**	
⑮	****H**	****	****H**	
⑯	****H**	****	****H**	

* Above display is an example and the display contents depend on the input signal mode.

← The result of items "G SAVED", "U SAVED", "IRIS", "FAN", "FAN1", "FAN2", "FAN3", "TEMP", "LAMP" and "2000H", "OK" is displayed for OK and "NG" is displayed for NG.

	Display Contents	Remarks
①	Microcomputer / FPGA / IRIS Control Microprocessor Software Version Display *1	Microcomputer (IC1010), FPGA (IC1032) and IRIS control microprocessor (IC1133) software versions are shown from the left.
②	Signal Name	Different display according to the input signal
③	Horizontal Signal Frequency	RGB or YPbPr (YCbCr) signal reception only
④	Vertical Signal Frequency	RGB or YPbPr (YCbCr) signal reception only
⑤	Sampling Hold IC Revision	It is distinguished whether the IC is revised. R, G, B - ON: Revised OFF: Not revised (Initial value)
⑥	Iris Abnormality Check	It is distinguished whether the iris operates normally.
⑦	FAN1 Error Information	FAN1 (Power fan) Error
⑧	FAN3 Error Information	FAN3 (Intake fan) Error
⑨	Temperature Abnormality Check	Cause of Lamp Malfunction
⑩	Thermosensor 1 A/D conversion value (0 - 255) *2	Current temperature around the LCD panel
⑪	Thermosensor 2 A/D conversion value (0 - 255) *2	Current temperature around the air intake slot (Detects air filter's choke, etc.)
⑫	Lamp Abnormality Check	Cause of Lamp Malfunction
⑬	Total Usage Time	Projector Cumulative Usage Time
⑭	Lamp ON - Cumulative Usage Time / Frequency / Cumulative Usage Time	Current
⑮		Second
⑯		First
⑰	Gamma Correction Data Check	It is distinguished whether gamma data is stored in the flash ROM.
⑱	Color Unevenness Correction Data Check	It is distinguished whether color unevenness correction data is stored in the flash ROM.
⑲	Fan Stop Check	Cause of Lamp Malfunction
⑳	FAN2 Error Information	FAN2 (Exhaust fan) Error
㉑	Thermosensor 1 A/D conversion value (0 - 255) *2	Temperature around the LCD panel when the last thermal shutdown occurs
㉒	Thermosensor 2 A/D conversion value (0 - 255) *2	Temperature around the air intake slot when the last thermal shutdown occurs
㉓	Lamp - Judgment for Cumulative Usage more than 2 000 h	Judgment for Replacement Time of Lamp
㉔	Lamp - Reset Frequency of Cumulative Usage Time	Reset Frequency (0 - 255)

*1 FPGA (Field Programmable Gate Array)

LSI that is rewritable quickly while inspecting the program by system designer. (This will be able to reduce the development time.)

*2 When detected abnormal temperature (high temperature around the LCD panel, large difference between temperature at the air intake slot and temperature around the LCD panel), TEMP indicator turned on. If arriving at the critical temperature, the power supply will shut down automatically (thermal shutdown) and the indicator will flash.

3.3. Canceling the self-check mode

Press "MENU" button on the main unit or remote control unit.

4 Flicker Adjustment Mode

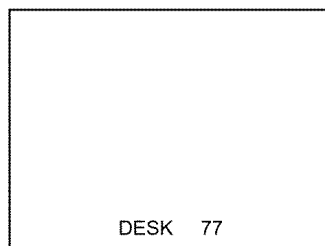
If replacing the optical parts (LCD Panel / LCD block) or A-P.C.Board of this projector, enter the flicker adjustment mode and minimize the flicker.

4.1. Procedure to enter the adjustment mode

Select "FLICKER ADJ" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

Note:

"DESK setting (red)" is displayed when entering the adjustment mode.



Adjustment Display when DESK setting

4.2. Adjustment Display and Contents

- Setting value is increased and decreased with the right-arrow " ► " and left-arrow " ◀ " buttons.
 - " ◀ ": Decrease, " ► ": Increase
 - Adjust the setting value to minimize the flicker on the screen.
 - Execute the adjustment by 6 patterns below.
- The pattern (adjustment display) is switched with the up-arrow " ▲ " and down-arrow " ▼ " buttons.
 - " ▲ ": Forward direction, " ▼ ": Reverse direction
 - There are 6 patterns of "DESK setting (red)", "DESK setting (blue)", "DESK setting (green)", "CEILING setting (red)", "CEILING setting (blue)" and "CEILING setting (green)".
 - The setting value is saved into this projector when the pattern is switched.

4.3. Canceling the flicker adjustment mode

Press "MENU" button on the main unit or remote control unit.

Note:

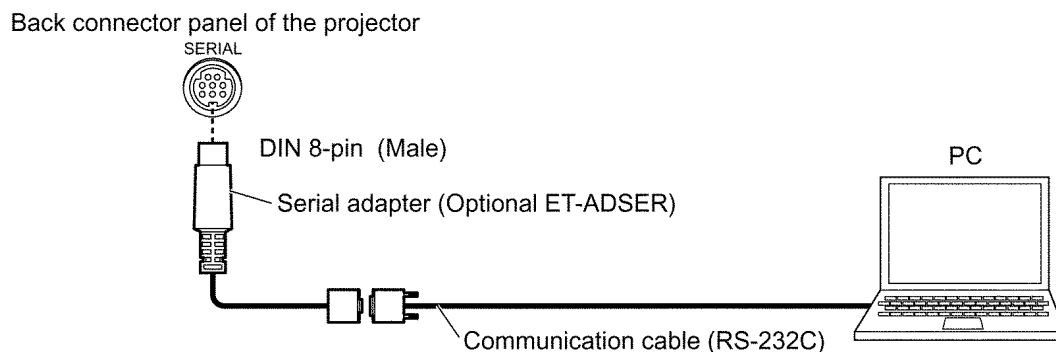
When "MENU" button is pressed, the setting value at that time is saved into this projector and the adjustment mode is canceled.

5 Using the SERIAL Connector

The serial connector which is on the back connector panel of the projector conforms to RS-232C standard. This projector can be controlled by a PC which is connected as shown in "5.1. Connection".

For controlling this projector by a PC, requires communication software on the market, and inputs control commands according to communication settings and basic format below.

5.1. Connection

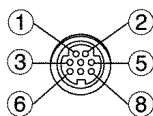


Note:

Use a proper communication cable which is suitable for the PC to connect the optional serial adapter, which is connected with SERIAL connector of this projector, and the PC.

5.2. Pin Layout and Signal Names for SERIAL Connector

DIN 8-pin (female)
seen from outside



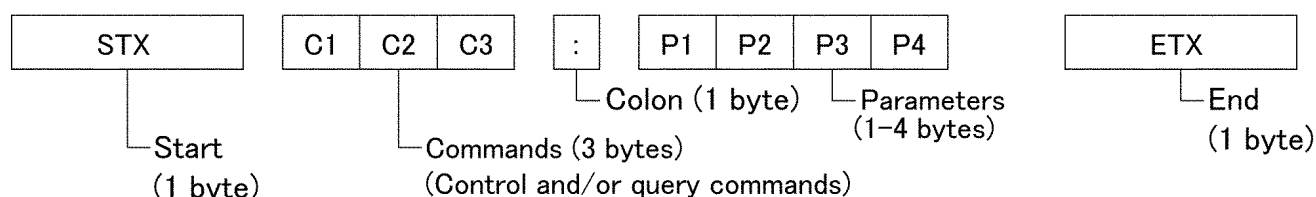
Pin No	Signal Name	Contents
3	RXD	Receive data
4	GND	Ground
5	TXD	Transmit data
1	---	Connected internally
2	---	
6	---	
7	---	NC
8	---	NC

5.3. Communication Settings

Signal Level	Conforms to RS-232C standard	Contents	Description
Sync. method		Asynchronous	Synchronizes every 1 character (8 bits)
Baud rate		9 600 bps	Data transfer speed
Parity		None	Error detection method
Character length		8 bits	Number of bit composing 1 character
Stop bit		1 bit	Uses stop bit when asynchronous method
X parameter		Not used	
S parameter		Not used	

5.4. Basic Format

The data sent from the PC to the projector is transmitted in the format shown below.



Notes:

- If sending multiple commands, check that a call back has been received from the projector for 1 command before sending the next command.
- When a command which does not require parameters is sent, the colon (:) is not required.

5.5. Control / Query Commands

Control Commands

Command Name (Parameter format is shown in <>)	Function / Contents	Call back from Projector (Parameter format is shown in <>)	Minimum Value of Parameter	Maximum Value of Parameter
PON *	POWER ON	PON	_____	_____
POF *	POWER OFF	POF	_____	_____
IIS : <input signal>	INPUT SELECT	IIS : <input signal>	_____	_____
OST	NORMAL	OST	_____	_____
OFZ : <off_on>	FREEZE	OFZ : <off_on>	0	1
OEN :	ENTER	OEN	_____	_____
VPM : <picture mode>	PICTURE MODE	VPM : <picture mode>	_____	_____
<NOR>	NORMAL	<NOR>	_____	_____
<DYN>	DYNAMIC	<DYN>	_____	_____
<CN1>	CINEMA1	<CN1>	_____	_____
<CN2>	CINEMA2	<CN2>	_____	_____
<CN3>	CINEMA3	<CN3>	_____	_____
<VID>	VIDEO	<VID>	_____	_____
<NAT>	NATURAL	<NAT>	_____	_____
OMN	MENU	OMN		
OCU	CURSOR UP	OCU		
OCD	CURSOR DOWN	OCD		
OCL	CURSOR LEFT	OCL		
OCR	CURSOR RIGHT	OCR		
OSH *	SHUTTER	OSH		
OVM	PIC.MODE	OVM		
VS1	ASPECT	VS1		
OBK	RETURN	OBK		

* Do not transmit the PON, POF and/or OSH commands continuously in a short time.
The lamp may be damaged and/or cause malfunctions.

Query Commands

Query Command	Contents	Call back from Projector (Parameter format is shown in < >)
QPW	POWER CONDITION	<power condition>
QIN	INPUT SIGNAL	<input signal>
QPM	PICTURE MODE	<NOR>=NORMAL <DYN>=DYNAMIC <CN1>=CINEMA1 <CN2>=CINEMA2 <CN3>=CINEMA3 <VID>=VIDEO <NAT>=NATURAL
QFZ	FREEZE	<off_on>
QSH	SHUTTER	<off_on>

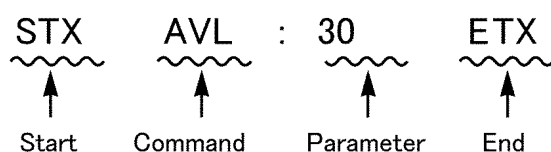
Parameters

Parameter Format	Parameter Size (Byte)	Parameter Definition
<pl>	3 (provided that approves of 1 byte or 2 bytes when control)	Decimal notation without plus/minus sign (0 to 999), Decimal notation with plus/minus sign (-99 to +99) (Returns 3 bytes call back from the projector. Decimal notation without plus/minus sign (000, 001, 002, ..., 999), Decimal notation with plus/minus sign (-99, -98, ..., -01, +00, +01, ..., +99))
<off_on>	1	0=OFF, 1=ON
<input signal>	3	VID = VIDEO, SVD = S-VIDEO, RG1 = PC, YUV = YPbPr (PT-AE900E only), HDM = HDMI, CP1 = YPbPr1 (PT-AE900U only), CP2 = YPbPr2 (PT-AE900U only), SCT = SCART (PT-AE900E only)
<installation>	1	0=FRONT/DESK, 1=REAR/DESK, 2=FRONT/CEILING, 3=REAR/CEILING
<language>	3	ENG=English, DEU=German, FRA=French, ESP=Spanish, ITA=Italian, JPN=Japanese, CHI=Chinese, KOR=Korean, RUS=Russian, POR=Portuguese, SVE=Swedish, NOR=Norwegian, DAN=Danish, POL=Polish, CES=Czech, MAG=Hungarian, THA=Thai
<power condition>	3	000=Power OFF, 001=Power ON
<acctch>	4	Decimal notation without plus/minus sign: 0000 hour to 9999 hours
<lamp power>	1	0=LOW, 1=HIGH
<color temp.>	1	0=LOW, 1=STD, 2=HIGH

* If an incorrect command is sent from the PC, the "ER401" command will be sent from the projector to the PC.

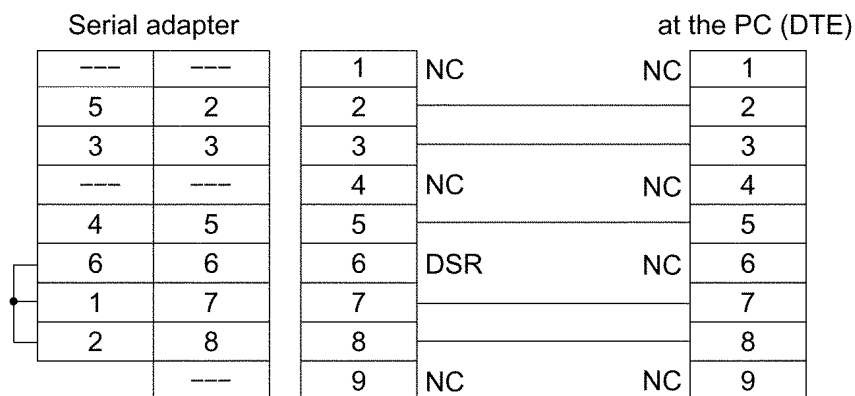
[Example]

When controls the audio volume to +30 by a PC
(Sends commands as the following:)



• When a command which does not require parameters is sent, the colon (:) is not required.

5.6. Communication Cable Specifications



5.7. Signal Selector Connecting Cable Specifications

When connecting to a signal selector (ex. TW-SWS62J), use a cable with specifications below.

Connecting method: Connects a video signal cable from the signal selector to "VIDEO IN", and an RGB signal cable to "RGB1 IN".

At the signal selector D-sub 9p (male)		At the serial adapter (DCE) D-sub 9p (male)		Serial adapter	
Signal Name	Pin No.	Pin No.	Signal Name	Pin No. (cable side)	Pin No. (projector side)
NC	1	1	NC	---	---
RD Receive data	2	2	SD Transmit data	2	5
SD Transmit data	3	3	RD Receive data	3	3
NC	4	4	NC	---	---
GND Ground	5	5	GND Ground	5	4
NC	6	6	DSR	6	6
RS Transmit request	7	7	CS Transmit permission	7	1
CS Transmit permission	8	8	RS Transmit request	8	2
NC	9	9	NC	---	---

Note:

Set VP control terminal switch of the signal selector to VP TYPE "B".

6 Disassembly Instructions

Warning:

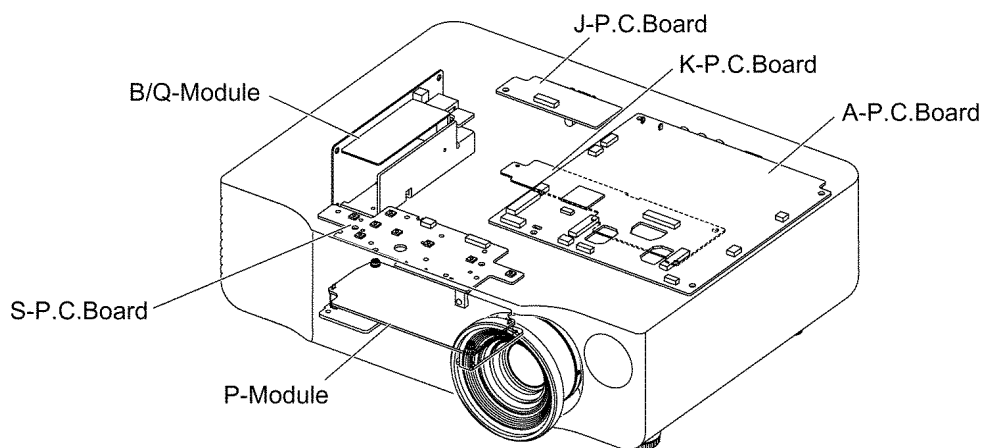
- Be sure to unplug the power cord from the power outlet before disassembling this projector.

Caution:

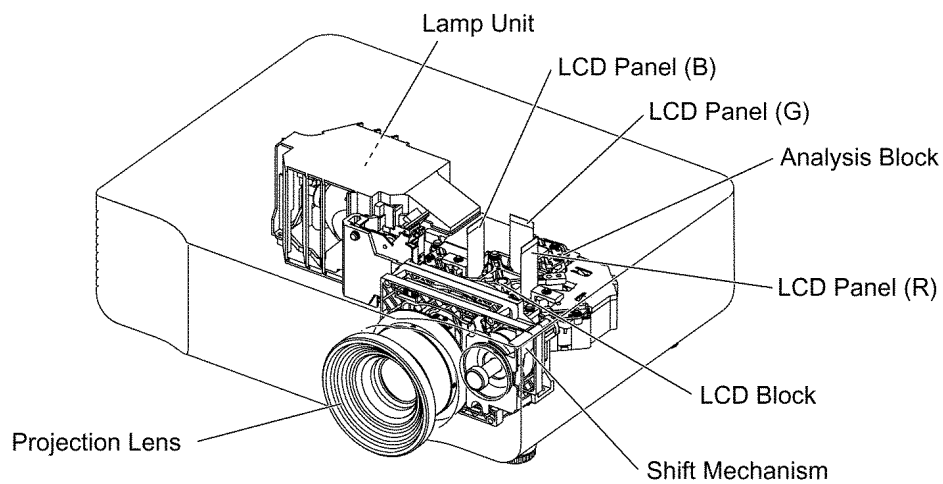
- While turning over a printed circuit board, be sure to put a insulating material under it to prevent a short circuit.
- Printed circuit boards and wires must not be pulled forcibly, but be handled carefully.
- Connectors also must be handled carefully.
- After repairing this projector, be sure to put back the wires and connectors to the original condition.

6.1. Printed Circuit Board and Main Parts Location

Electrical Parts

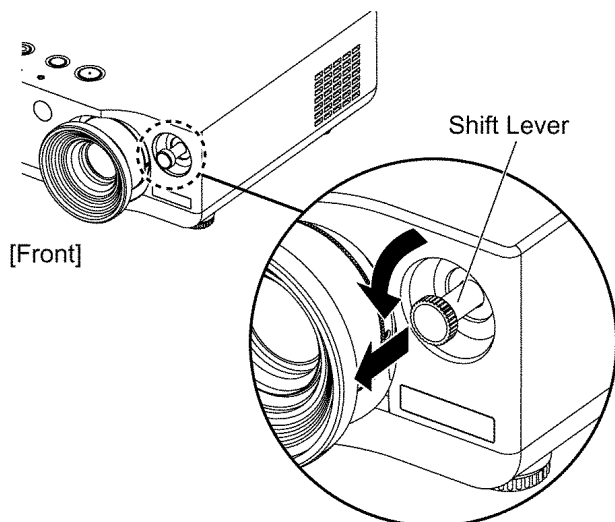


Optical Parts

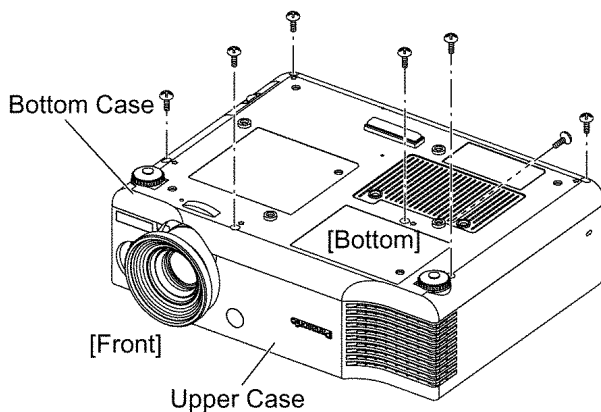


6.2. Removal of Upper Case

1. Turn counterclockwise the shift lever and remove it.



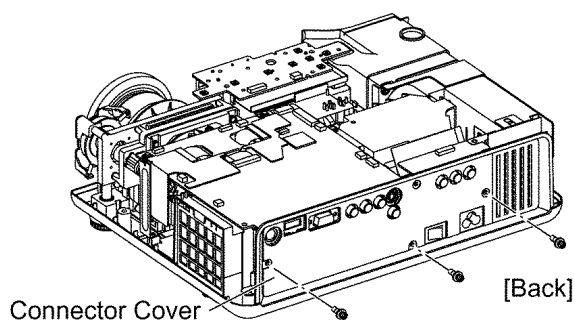
2. Turn the projector upside down.
3. Unscrew the 7 screws.



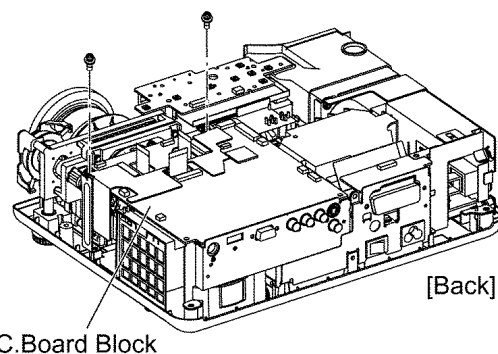
4. Return the projector to the normal position.
5. Remove the upper case.

6.3. Removal of A-P.C.Board

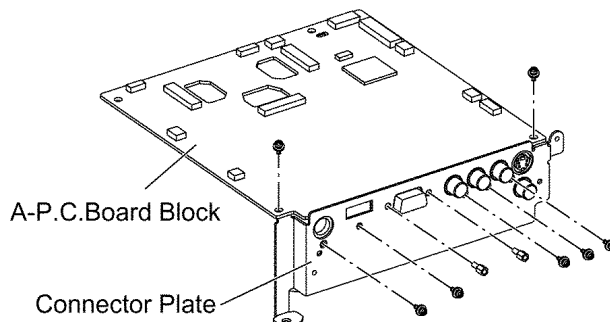
1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 3 screws and remove the connector cover.



3. Unscrew the 2 screws and remove the A-P.C.Board block.

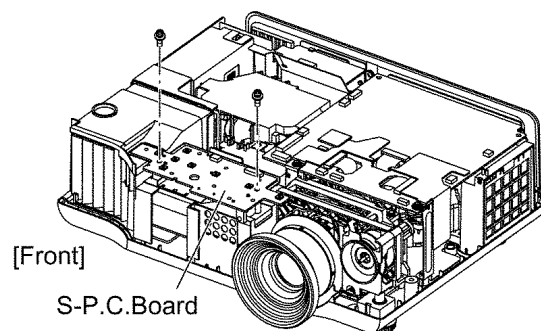


4. Unscrew the 9 screws and remove the connector plate.



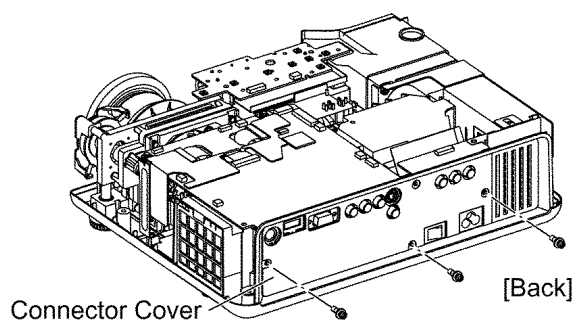
6.4. Removal of S-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the S-P.C.Board.



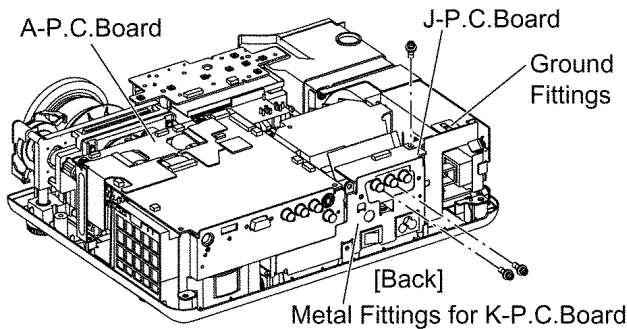
6.5. Removal of J-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 3 screws and remove the connector cover.

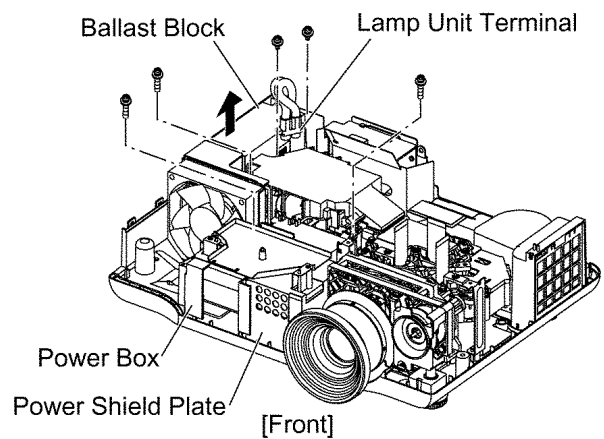
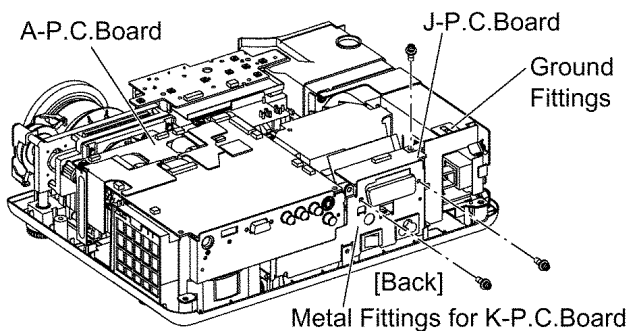


3. Unscrew the 3 screws and remove the J-P.C.Board.

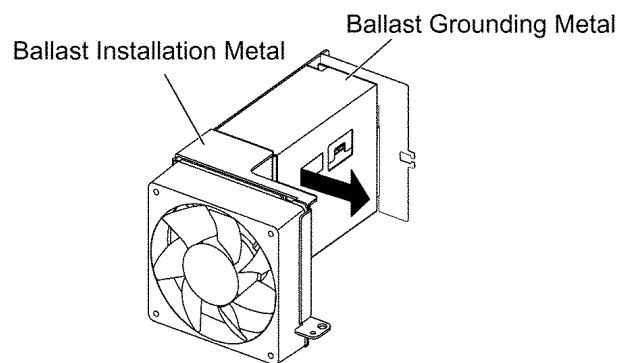
[For PT-AE900U]



[For PT-AE900E]

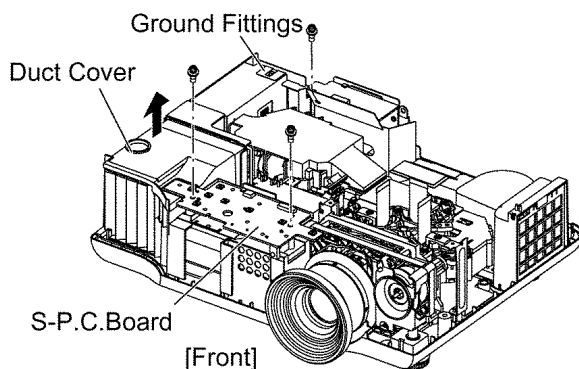


9. Disconnect the connector P2 and remove the ballast block.
10. While sliding the ballast grounding metal, unhook the hook section and remove it.

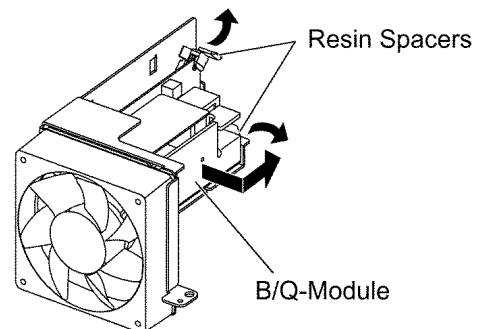


6.6. Removal of B/Q-Module

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Remove the A-P.C.Board block according to the steps 2 through 3 in the section 6.3. "Removal of A-P.C.Board".
3. Unscrew the 2 screws and remove the S-P.C.Board.
4. Unhook the hook section and remove the duct cover.
5. Unscrew the 1 screw and remove the ground fittings.



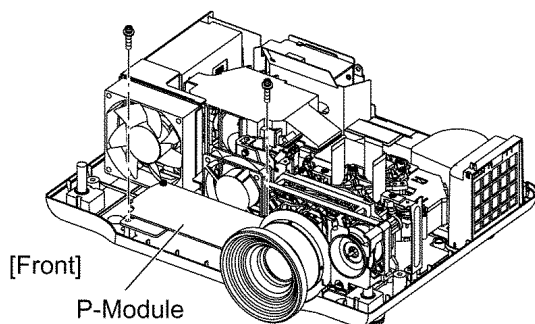
11. Unhook the hook section of resin spacers and remove the B/Q-Module.



6.7. Removal of P-Module

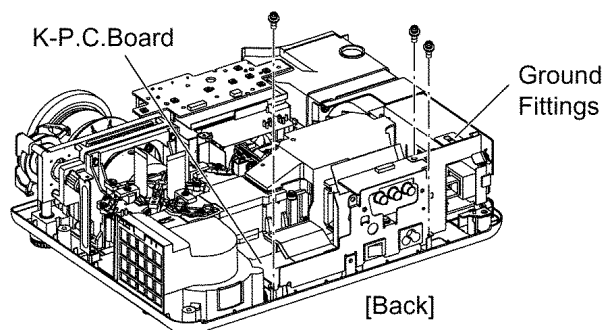
1. Remove the power box according to the steps 1 through 7 in the section 6.6. "Removal of B/Q-Module".
2. Unscrew the 2 screws and remove the P-Module.

6. Unscrew the 1 screw and release the ballast block.
7. Unscrew the 2 screws and remove the power box with power shield plate.
8. Unscrew the 2 screws and remove the lamp unit terminal.

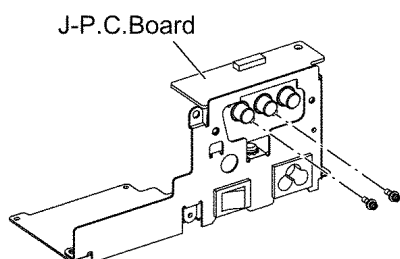


6.8. Removal of K-P.C.Board

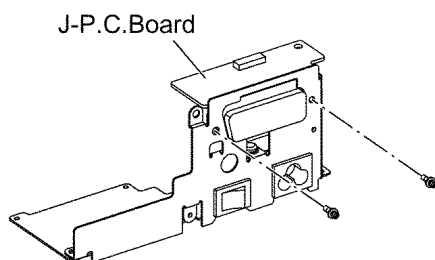
1. Remove the A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 1 screw and remove the ground fittings.
3. Unscrew the 2 screws and remove the K-P.C.Board block.



4. Unscrew the 2 screws and remove the J-P.C.Board.
[For PT-AE900U]



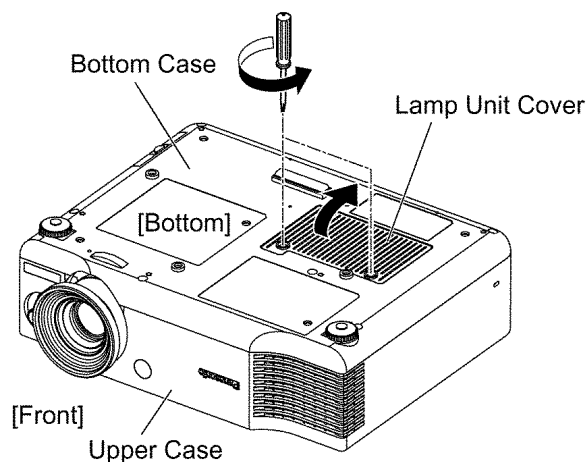
[For PT-AE900E]



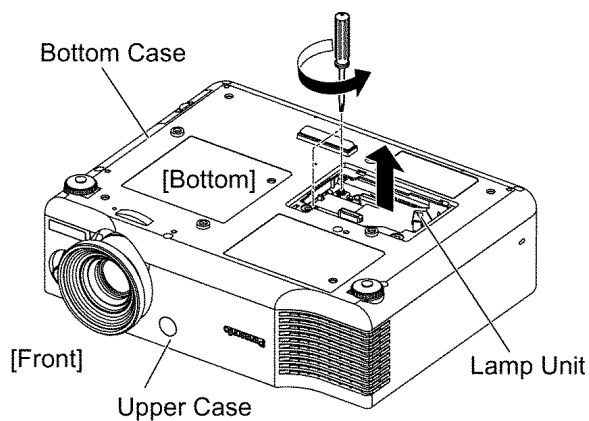
6.9. Removal of Lamp Unit

1. Turn the projector upside down.
2. Loosen the 2 screws until they idle and remove the lamp

unit cover.



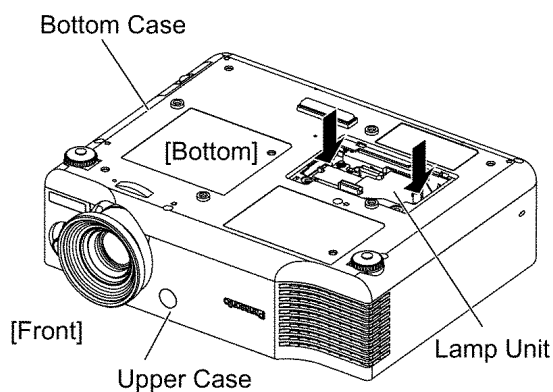
3. Loosen the 2 screws fixing the lamp unit until they idle and remove the lamp unit.



Note:

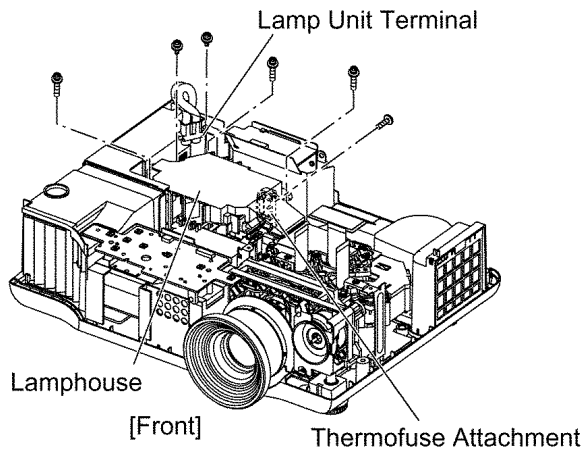
- When installing the lamp unit (or a new one) in the main unit, place it in a specified position and press the connector side and the opposite side of the lamp unit (arrow positions shown in the figure below), and confirm the lamp unit is inserted securely.

Then, tighten the 2 screws fixing the lamp unit, and attach the lamp unit cover.

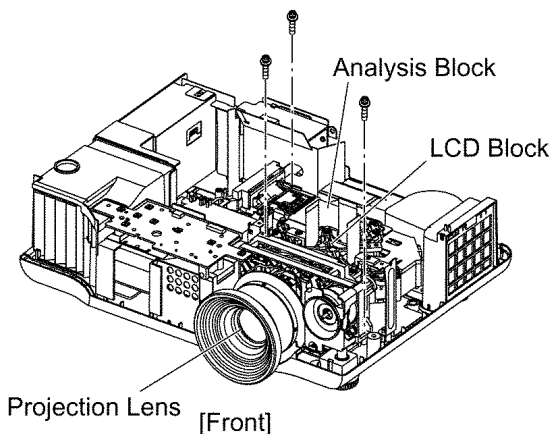


6.10. Removal of Analysis Block

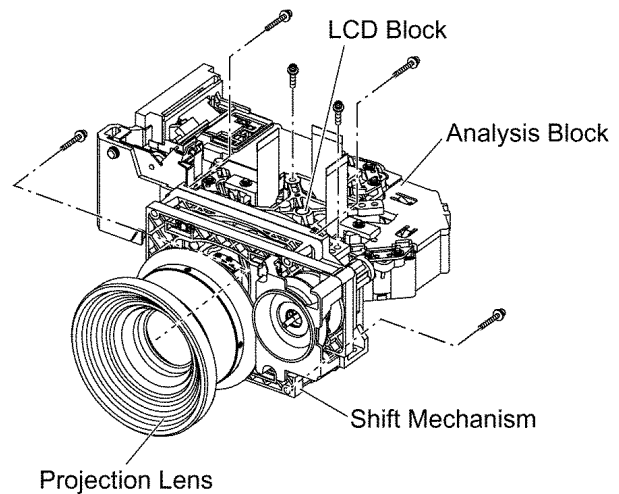
1. Remove the lamp unit according to the section 6.9. "Removal of Lamp Unit".
2. Remove the A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
3. Unscrew the 2 screws and remove the lamp unit terminal.
4. Unscrew the 1 screw and remove the thermofuse attachment.
5. Unscrew the 3 screws and remove the lamphouse.



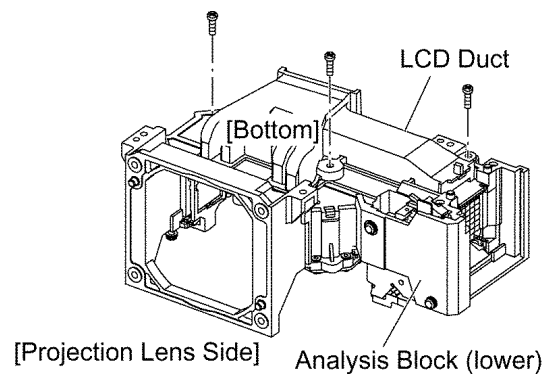
6. Unscrew the 3 screws and remove the block of Analysis Block, LCD Block and Projection Lens Block.



7. Unscrew the 2 screws and remove the LCD block.
8. Unscrew the 4 screws and remove the projection lens block (with shift mechanism).

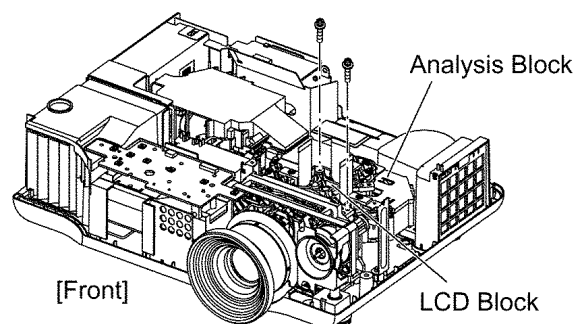


9. Unscrew the 3 screws and remove the LCD duct.



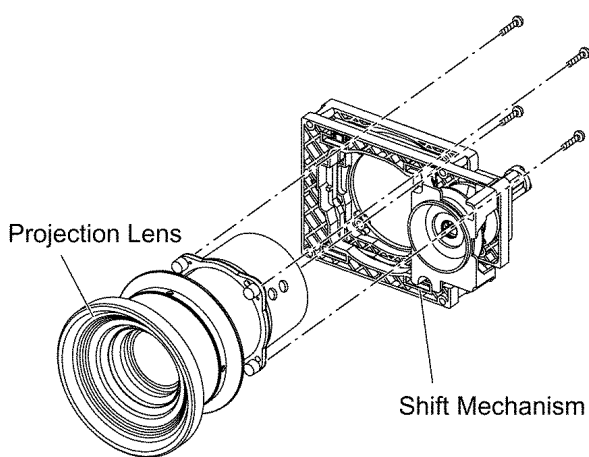
6.11. Removal of LCD Block

1. Remove the A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 2 screws and remove the LCD block.



6.12. Removal of Projection Lens

1. Remove the projection lens block according to the steps 1 through 8 in the section 6.10. "Removal of Analysis Block".
2. Unscrew the 4 screws and separate the projection lens and the shift mechanism.



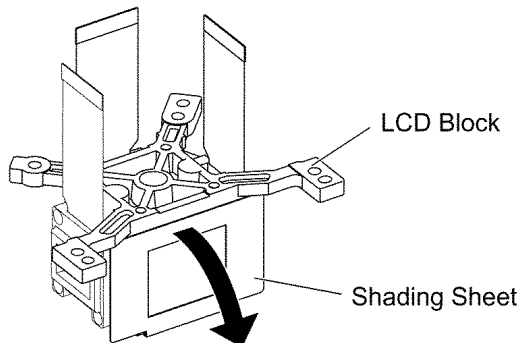
6.13. Replacement of LCD Panel

- The procedure is described as an example of LCD panel (B).

1. Remove the LCD block according to the section 6.11. "Removal of LCD Block".
2. For replacement of LCD panel (B) or (R), remove the shading sheet.

Note:

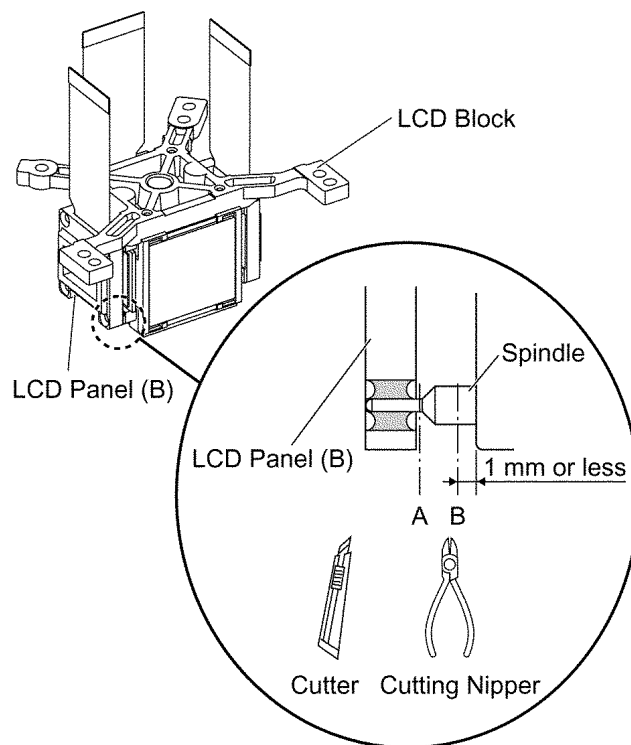
- The shading sheet is adhered with the adhesive sheet. Do not touch the adhesive sheet of the shading sheet because it is adhered on former position after the LCD panel is replaced.



3. Cut the 4 LCD panel installation spindles at the position A and remove the LCD panel.
4. Cut the 4 LCD panel installation spindles at the position B and remove them.

Notes:

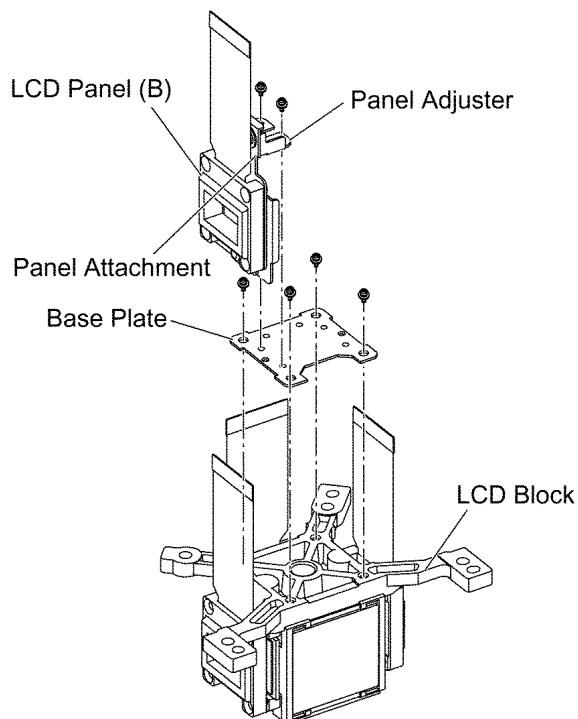
- Work carefully not to apply external force around the spindle part by using a cutter, cutting nipper or the like for cutting the spindle.
- Adjust the height after the spindle is cut to 1 mm or less.



5. Attach the base plate with 4 screws.
6. Tighten the 2 screws temporarily just until new LCD panel (with the panel attachment and panel adjuster) can be shifted by your fingers.

Note:

- The panel adjustment fittings set (panel adjuster, panel attachment and base plate) is an option for service.



7. Reassemble the projector in the reverse order of disassembling, but leave the upper case and the screws fixing the A-P.C.Board block as they are removed.
8. Adjust the convergence according to the section 7.4. "Convergence Adjustment".

9. After the adjustment, while paying attention not to vary the adjusting result, tighten the 2 screws (upper) fixing the panel attachment temporarily with a hexagon head wrench.

Note:

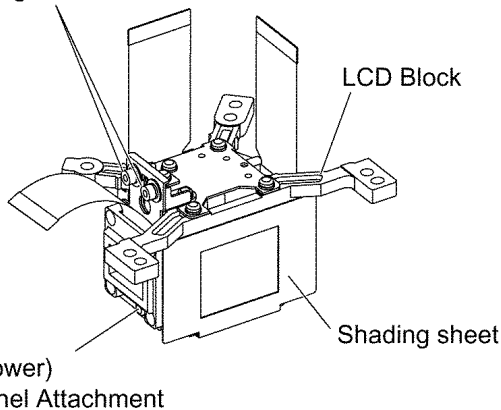
- Prepare a hexagon head wrench processed short.

10. Remove the LCD block again.

11. Tighten the 3 screws fixing the panel attachment.

12. For replacement of LCD panel (B) or (R), adhere the shading sheet as it was.

Hexagon socket screws
(upper) fixing Panel Attachment

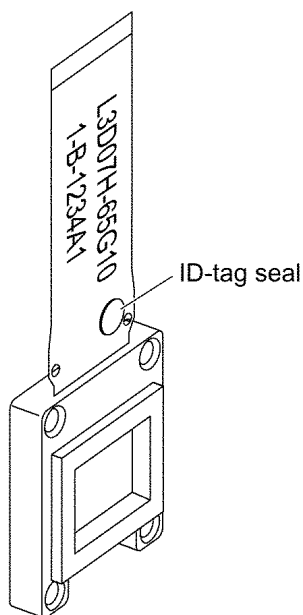


13. Reassemble the projector as it was.

6.14. LCD Panel Discrimination

ID-tag seal color	LCD panel
Red	LCD panel (R)
Blue	LCD panel (B)
(No seal)	LCD panel (G)

- Since the ID-tag seal is pasted to the FPC of LCD Panel, (R), (G) or (B) can be easily identified by the color of the seal.
- Finally, identify the panel color by the part number printed on the FPC.



6.15. LCD Panel Combination

- Part number is printed on the FPC of LCD Panel.

- When replacing LCD Panel, use a component which has the same part number as the original.

LCD panel	Combination 1	Combination 2
R	L5BDAXQ00260 (L3D07H-65G10)	L5BDAXQ00263 (L3D07H-66G10)
G	L5BDAXQ00264 (L3D07H-66G10)	L5BDAXQ00261 (L3D07H-65G10)
B	L5BDAXQ00262 (L3D07H-65G10)	L5BDAXQ00265 (L3D07H-66G10)

6.16. Replacement of Projection Polarizer

1. Remove the LCD block according to the section 6.11. "Removal of LCD Block".

2. Remove the projection polarizer which requires replacing.

(The projection polarizer is adhered with the adhesive tape.)

Note:

- Be careful not to damage peripheral components (prism, LCD panel, etc.).
- Use tweezers.

3. Install new projection polarizer.

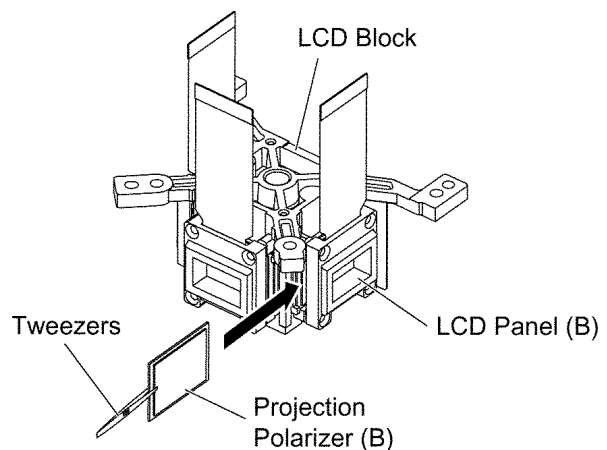
- a. Put adhesive tape on the projection polarizer.

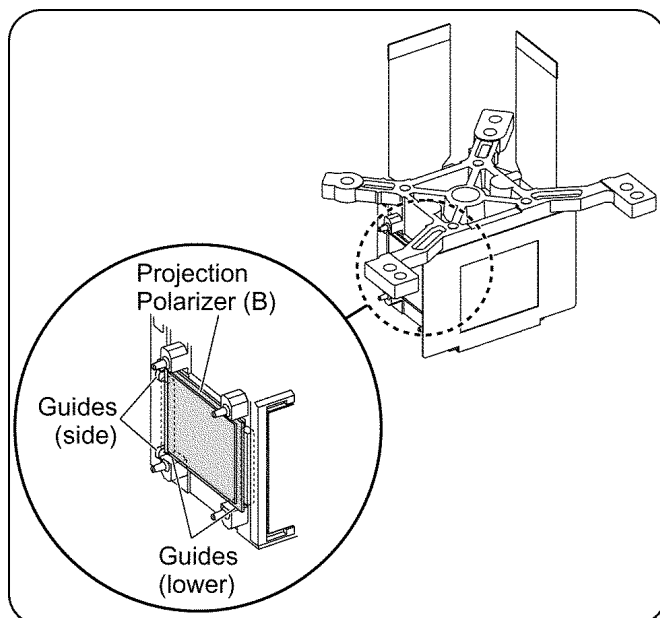
- b. Adhere the projection polarizer on the specified position.

Notes:

- Align the projection polarizer with the guides (lower, side) of LCD block.
- Be careful not to touch the surface of projection polarizer.
- Use tweezers.

- c. Press the adhesive part and secure the projection polarizer.





6.17. Replacement of Incidence Polarizer

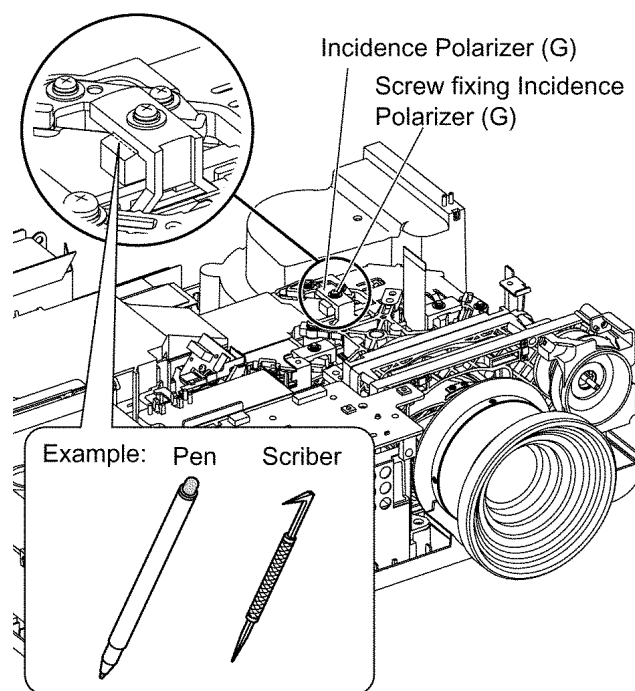
- The procedure is described as an example of incidence polarizer (G).

1. Remove the A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Mark positions of the incidence polarizer.

Note:

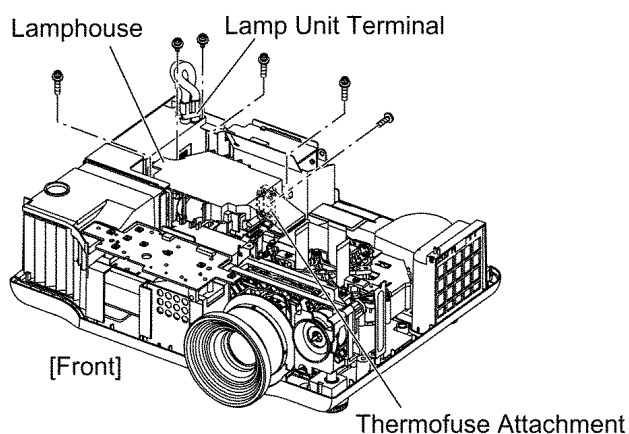
- Mark accurately as possible because the marks will be used for resetting the incidence polarizer position.

3. Unscrew the 1 screw and remove the incidence polarizer.
4. Attach a new incidence polarizer and align it with the mark.
5. Tighten the 1 screw polarizer with care not to move the incidence polarizer position.



6.18. Replacement of PBS Array (Analysis Block)

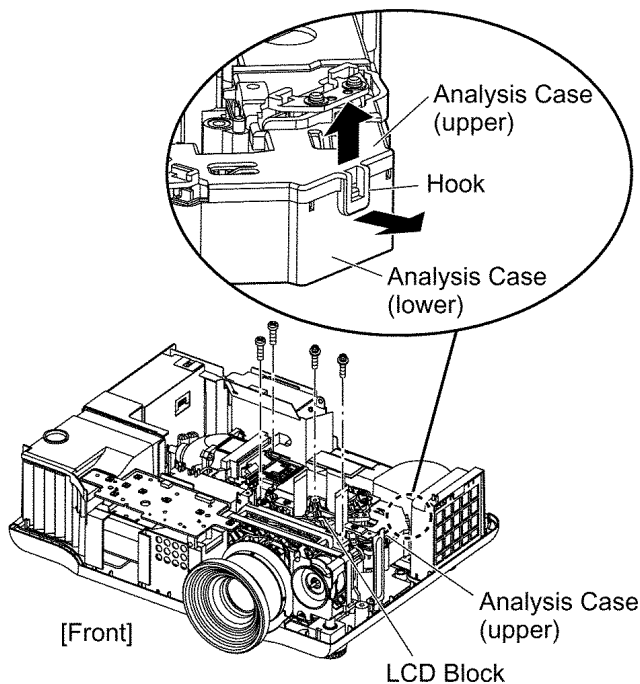
1. Remove the A-P.C.Board block according to the steps 1 through 3 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 2 screws and remove the lamp unit terminal.
3. Unscrew the 1 screw and remove the thermofuse attachment.
4. Unscrew the 3 screws and remove the lamphouse.



5. Unscrew the 2 screws and remove the LCD block.
6. Unscrew the 2 screws.
7. Remove the analysis case (upper) while expanding the hook of it outside.

Notes:

- Because the hook is damaged easily, be careful not to expand it excessively.
- The incidence polarizer (R, G and B) is installed in the analysis case (upper). Handle it with care.

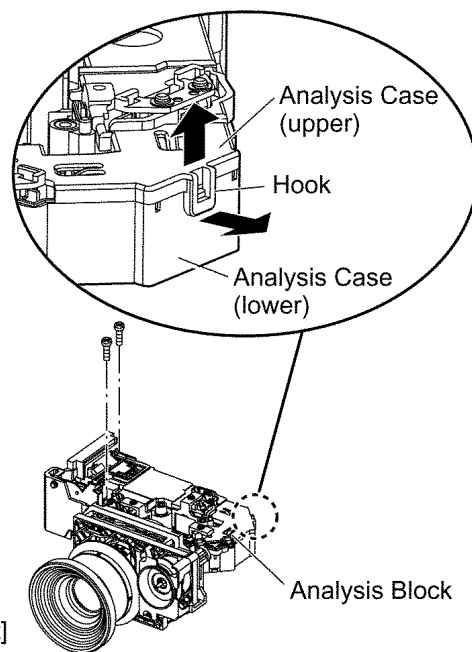
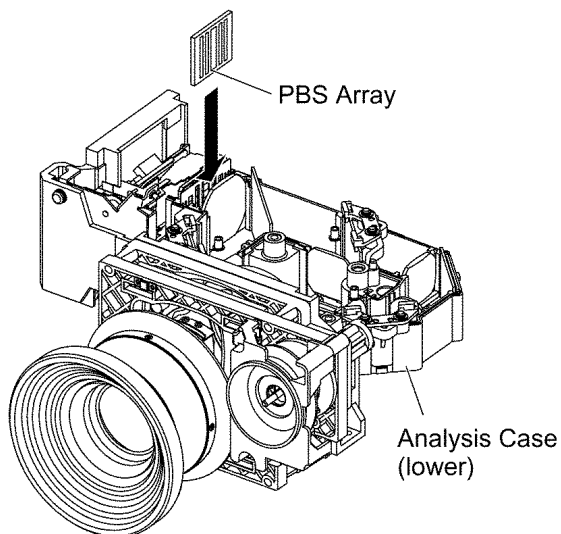


8. Remove the PBS array .

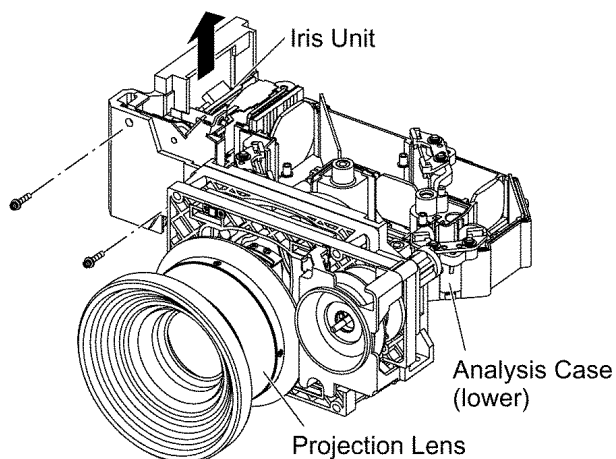
9. Install new PBS array.

Notes:

- Be careful not to mistake the direction (inside/outside, upper/lower).
- Be careful not to touch the surface of PBS array.



4. Unscrew the 2 screws and remove the iris unit .



6.19. Removal of Iris Unit

1. Remove the analysis block according to the steps 1 through 7 in the section 6.10. "Removal of Analysis Block ".

2. Unscrew the 2 screws.

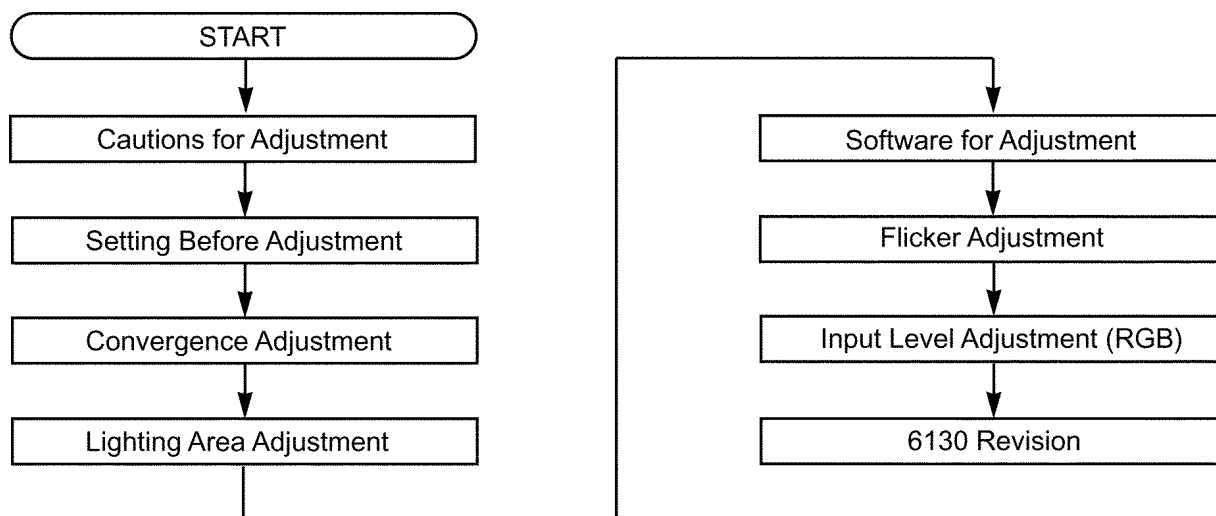
3. Remove the analysis case (upper) while expanding the hook of it outside.

Notes:

- Because the hook is damaged easily, be careful not to expand it excessively.
- The incidence polarizer (R, G and B) is installed in the analysis case (upper). Handle it with care.

7 Measurement and Adjustments

7.1. Adjustment Procedure Flowchart

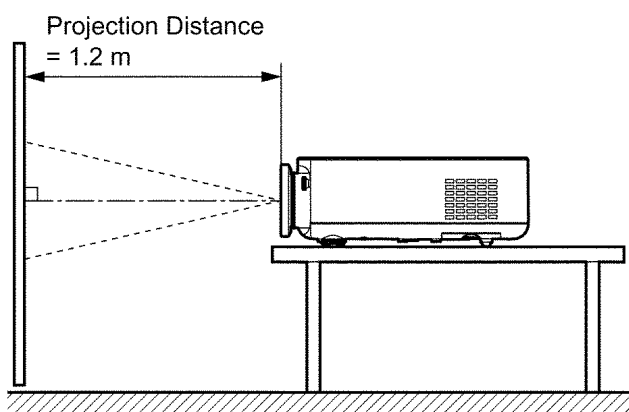


7.2. Cautions for Adjustment

- Never turn off the MAIN POWER switch until every fan completely stops.
- To maintain and ensure safety, always use the designated components for replacement parts.
- If removing any clamps, lead wires or connectors, always place them back in their proper locations.
- Be careful not to damage the lead wires or components when using a soldering iron or similar tool.

7.3. Setting Before Adjustment

- Set up the projector to obtain the projection distance below.
- Turn the zoom ring of the projector to obtain the largest size of the picture.



7.4. Convergence Adjustment

Execute this adjustment when replacing the LCD panel.

7.4.1. Tools to be used

Service Kit (Part No. TZSH07018): This kit is composed of 3

extension flexible cables and 3 connector extension cables.

Note:

- Consult your dealer or Authorized Service Center for the service kit.

7.4.2. Preparation

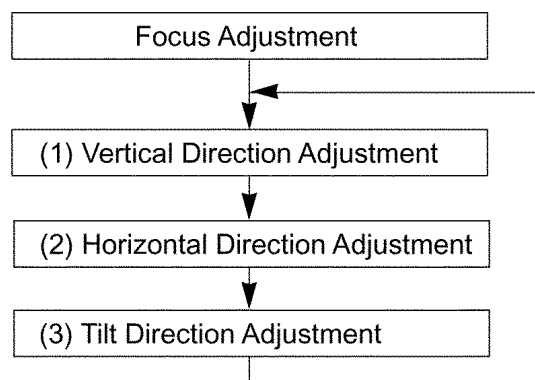
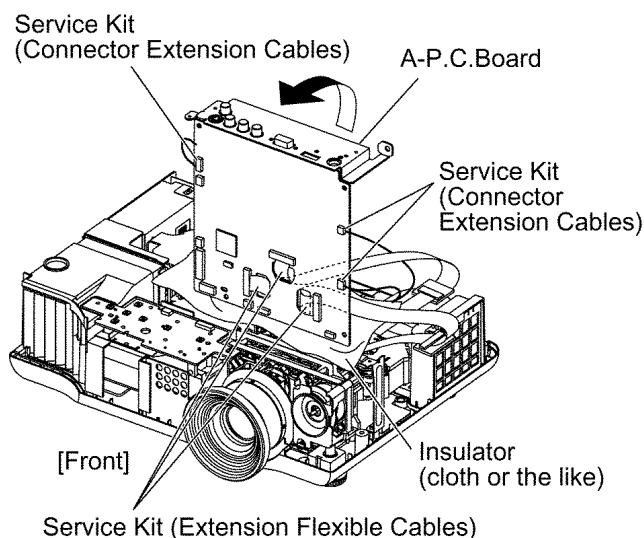
1. Loosen 2 screws fixing the panel adjuster and 3 screws fixing the panel attachment, then tighten the 5 screws temporarily just until the LCD panel can be shifted by your fingers.

Note:

- See figures in the section 6.13. "Replacement of LCD Panel" for 2 screws fixing the panel adjuster and 3 screws fixing the panel attachment.
2. Reassemble the projector in the reverse order of disassembling, but leave the upper case and the screws fixing the A-P.C.Board block as they are removed.
 3. Connect the service kit (extension cables).
 - Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
 - Connector (K2) on K-P.C.Board - Connector (A9) on A-P.C.Board
 - Thermosensor (Intake air) connector - Connector (A7) on A-P.C.Board
 - Intake fan connector - Connector (A15) on A-P.C.Board
 4. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board block on the main unit.

Note:

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.



Repeat steps (1) to (3) until the green and blue crosshatch patterns merge into a cyan pattern.

8. After the adjustment, reassemble the projector according to the section 6.13. "Replacement of LCD Panel".

7.4.3. Adjustment Procedure

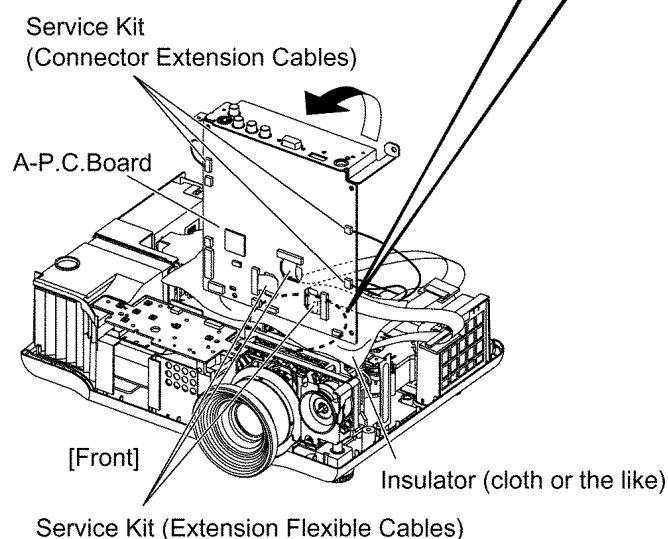
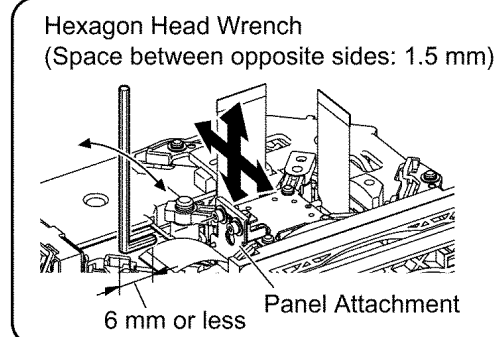
Prepare 2 pieces of thick black paper (23 mm × 100 mm) that can be shaded.

- Cover and shade LCD panels with the paper except the panel for adjustment.

7.4.3.1. When replacing single LCD panel (R, G or B)

- The procedure is described as an example when LCD panel (B) is replaced.

1. Display the green crosshatch pattern and adjust the lens focus.
2. Display green and blue crosshatch patterns.
3. Adjust focus by shifting the panel adjuster for LCD panel (B) back and forth, then tighten the 2 screws.
4. Adjust the LCD panel (B) position so that the vertical center of blue crosshatch pattern is overlapped with the vertical center of green crosshatch pattern.
5. Adjust the LCD panel (B) position so that the horizontal center of blue crosshatch pattern is overlapped with the horizontal center of green crosshatch pattern.
6. Correct the tilt of the blue crosshatch pattern by adjusting the LCD panel (B) position.
7. Display green, red and blue crosshatch patterns and confirm the convergence. If it is necessary, fine adjust the convergence so that the red and/or blue crosshatch pattern is overlapped with green one.



7.5. Lighting Area Adjustment

7.5.1. Tools to be used

Service Kit (Part No. TZSH07018): This kit is composed of 3 extension flexible cables and 3 connector extension cables.

Note:

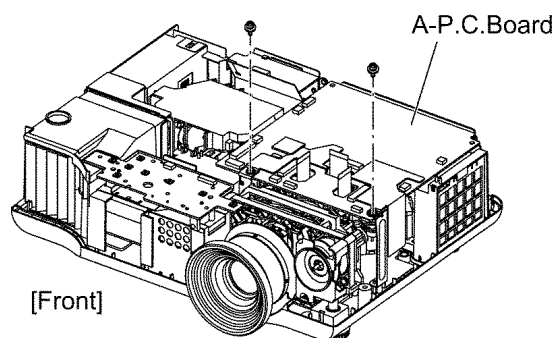
- Consult your dealer or Authorized Service Center for the service kit.

7.5.2. Preparation

1. Remove the upper case and the connector cover according

to the steps 1 through 2 in the section 6.3. "Removal of A-P.C.Board".

2. Unscrew the 2 screws.



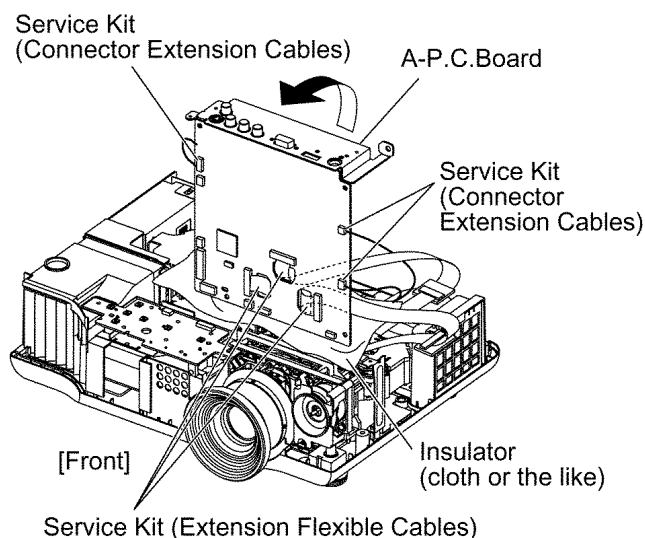
3. Connect the service kit (extension cables).

- Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
- Connector (K2) on K-P.C.Board - Connector (A9) on A-P.C.Board
- Thermosensor (Intake air) connector - Connector (A7) on A-P.C.Board
- Intake fan connector - Connector (A15) on A-P.C.Board

4. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board block on the main unit.

Note:

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.



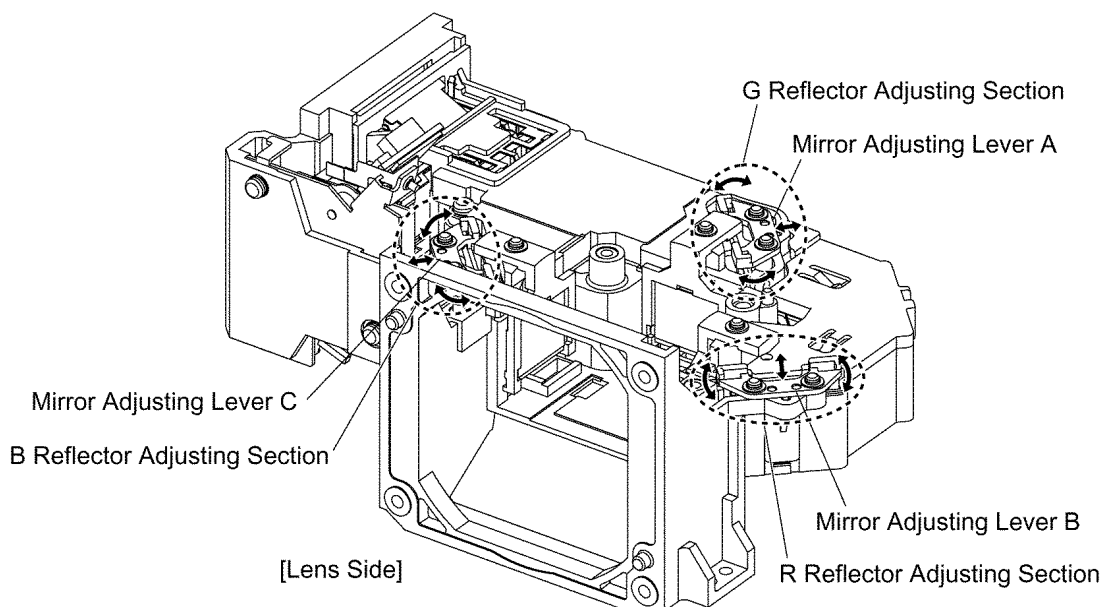
7.5.3. Adjustment Procedure

7.5.3.1. Outline

When the lighting area is off from the adjustment and color unevenness appears, adjust the lighting area into correct position.

Symptom	Measure
Magenta unevenness	G Reflector Adjustment
Cyan unevenness	R Reflector Adjustment
Yellow unevenness	B Reflector Adjustment

- Shifting the mirror adjusting lever horizontally, adjust color unevenness on the screen upper/lower sides.
- Twisting the mirror adjusting lever, adjust color unevenness on the screen right/left sides.



[Above figure is shown only the analysis block for explanation.]

7.5.3.2. G Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever A just until the lever can be shifted.

3. Adjust the mirror adjusting lever A position to minimize color unevenness on the screen by shifting the lever in arrow directions.

4. Tighten the 2 screws.

7.5.3.3. R Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever B just until the lever can be shifted.
3. Adjust the mirror adjusting lever B position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 2 screws.

7.5.3.4. B Reflector Adjustment

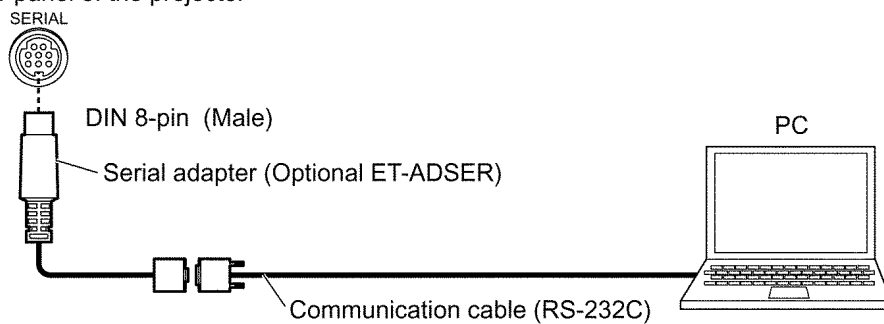
1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever C just until the lever can be shifted.
3. Adjust the mirror adjusting lever C position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 2 screws.

7.6. Software for Adjustment

7.6.1. Outline

- This projector needs computer-aided adjustments.
- After the software adjustments, this projector must be turned off and on again to memorize the settings.
- Connect the cable between the projector and a PC as shown below.
- Updating the software will change the version number.

Back connector panel of the projector



7.6.2. Operating Procedure

1. Run the software program by the keyboard entry.

Note:

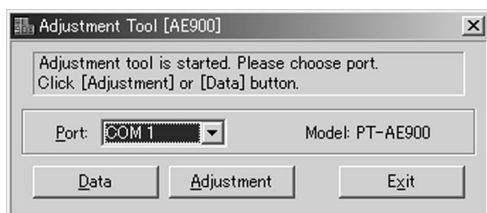
- Use the software program as below.
Adjustment Tool [AE900]

2. The first menu is Port selection menu.
3. Adjust the projector by selecting the necessary item from the menu in each stage.

Exit:

Exits this application.

7.6.3. Port Selection Menu



Select the port name of PC which connects with the projector, then click [Data] or [Adjustment] button.

7.6.3.1. Explanation of Buttons

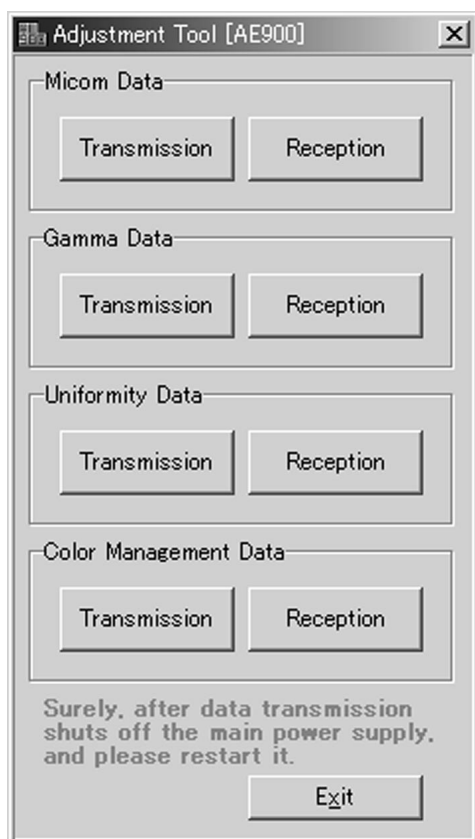
Data:

Displays the data transmission/reception menu.

Adjustment:

Displays the adjustment menu.

7.6.4. Data Transmission/Reception Menu



7.6.4.1. Explanation of Buttons

Micom Data Transmission:

Reads the microcomputer data from the file and transmits it to the projector.

Micom Data Reception:

Receives the microcomputer data from the projector and writes it in the file.

Gamma Data Transmission:

Reads the gamma data from the file and transmits it to the projector.

Gamma Data Reception:

Receives the gamma data from the projector and writes it in the file.

Uniformity Data Transmission:

Reads the color unevenness correction data from the file and transmits it to the projector.

Uniformity Data Reception:

Receives the color unevenness correction data from the

projector and writes it in the file.

Color Management Data Transmission:

Reads the color management data from the file and transmits it to the projector.

Color Management Data Reception:

Receives the color management data from the projector and writes it in the file.

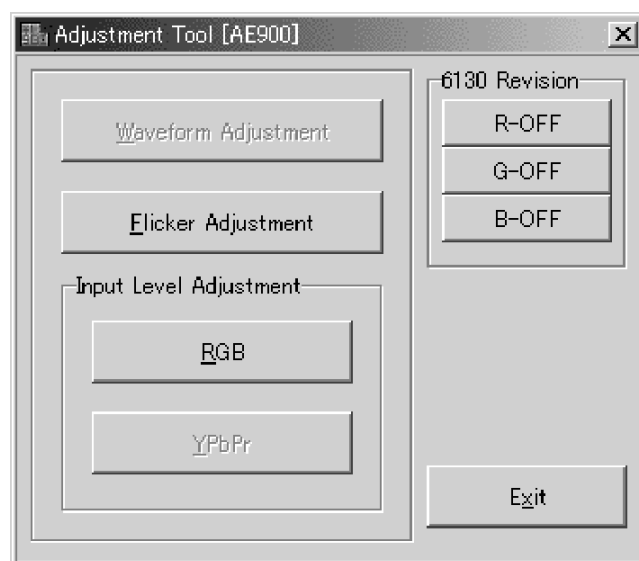
Exit:

Exits this application.

7.6.4.2. Receiving and sending of the data

Click a target button and specify a file name.

7.6.5. Adjustment Menu



7.6.5.1. Explanation of Buttons

Flicker Adjustment:

Displays Flicker Adjustment menu.

Input Level Adjustment [RGB]:

Displays Input Level Adjustment (RGB) menu.

6130 Revision [R-OFF]:

Resets the individual adjustment value of IC that controls R.

6130 Revision [G-OFF]:

Resets the individual adjustment value of IC that controls G.

6130 Revision [B-OFF]:

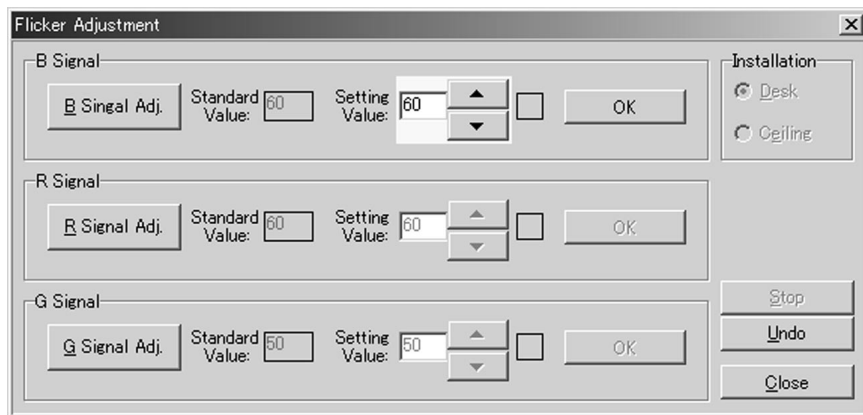
Resets the individual adjustment value of IC that controls B.

Exit:

Exits this application.

7.7. Flicker Adjustment

7.7.1. Adjustment Menu



7.7.2. Explanation of Buttons

B Signal Adj.:

Sets the test signal mode to the B-signal and allows the "▲", "▼" and "OK" buttons of the B-signal to become active.

R Signal Adj.:

Sets the test signal mode to the R-signal and allows the "▲", "▼" and "OK" buttons of the R-signal to become active.

G Signal Adj.:

Sets the test signal mode to the G-signal and allows the "▲", "▼" and "OK" buttons of the G-signal to become active.

▲ or ▼

Changes the setting value and transmits its data. (The 8 and 2 keys on the keyboard have the same functions.) If releasing the mouse or key after pressing it continuously, the data is transmitted once. The variable setting value is enclosed in a box and using the TAB or SPACE key allows the move of the box.

OK:

Determines the setting value and stores its data in the EEPROM. (The ENTER key on the keyboard has the same function.) The item having two or more kinds of setting values is processed two or more items. Clicking this button or pressing ENTER key changes the color of the text "OK" to cyan (light blue). If changing the setting value using the "▲" or "▼" button or the 8 or 2 key, its color returns to black.

Stop:

Discontinues the communication. (This button is usually set for its inactive mode.)

Undo:

Returns the setting value to its original state and transmits its data. The color of the text "OK" returns to black.

Close:

Closes this menu.

7.7.3. Equipment to be used

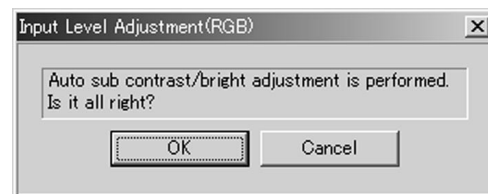
PC, Software for Adjustment

7.7.4. Adjustment Procedure

1. Display Flicker Adjustment menu.
2. Click "B Signal Adj," and the blue flicker adjustment pattern will be displayed.
3. Minimize the flicker while observing the projected pattern.
4. Click "R Signal Adj," and the red flicker adjustment pattern will be displayed.
5. Minimize the flicker while observing the projected pattern.
6. Click "G Signal Adj," and the green flicker adjustment pattern will be displayed.
7. Minimize the flicker while observing the projected pattern.

7.8. Input Level Adjustment (RGB)

7.8.1. Adjustment Menu



7.8.2. Explanation of Buttons

OK:

Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:

Cancels this menu.

7.8.3. Equipment to be used

PC, RGB Signal Generator, Software for Adjustment

7.8.4. Adjustment Procedure

1. Display Input Level Adjustment (RGB) menu.

2. Input a window pattern signal to PC IN (RGB) connector.

Note:

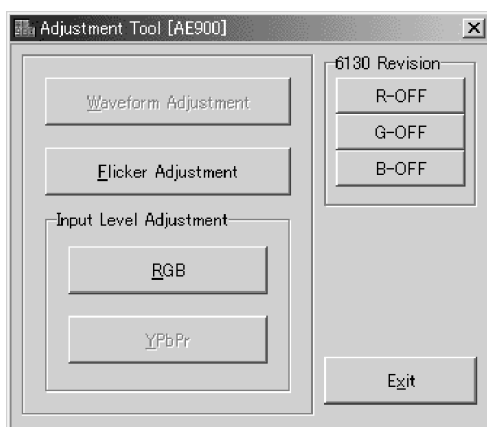
- Use approx. 15 % window pattern as follows.
 Black background (screen width) : White window
 width = 2 : 1
 Black background (screen height) : White window
 height = 3 : 1

3. Click the OK button.

7.9. 6130 Revision

When you replaced the sampling hold IC (IC1053, IC1055, IC1057), set "6130 Revision" corresponding to replaced IC into OFF.

7.9.1. Adjustment Menu



7.9.2. Equipment to be used

PC, Software for Adjustment

7.9.3. Adjustment Procedure

1. Display the adjustment menu.
2. Click [*-OFF] button corresponding to replaced IC.
 - Replacement of IC1053: B-OFF
 - Replacement of IC1055: G-OFF
 - Replacement of IC1057: R-OFF

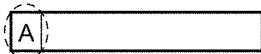
Note:

- When the button is clicked, individual adjustment values of IC is reset into the initial value when shipped.

8 Troubleshooting

The letters in the left of the inspection items indicate the P.C.Boards or Modules related to their respective descriptions.

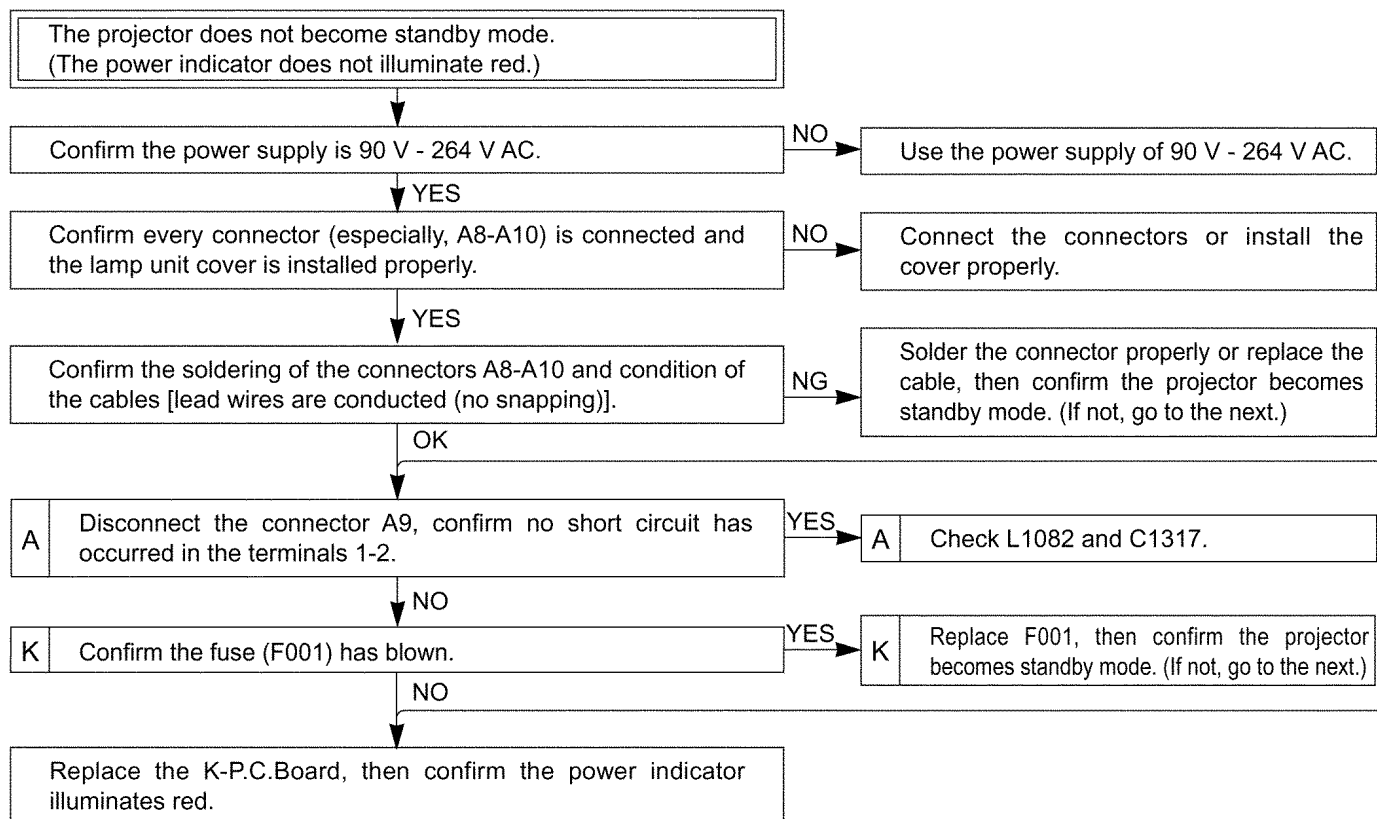
Note:

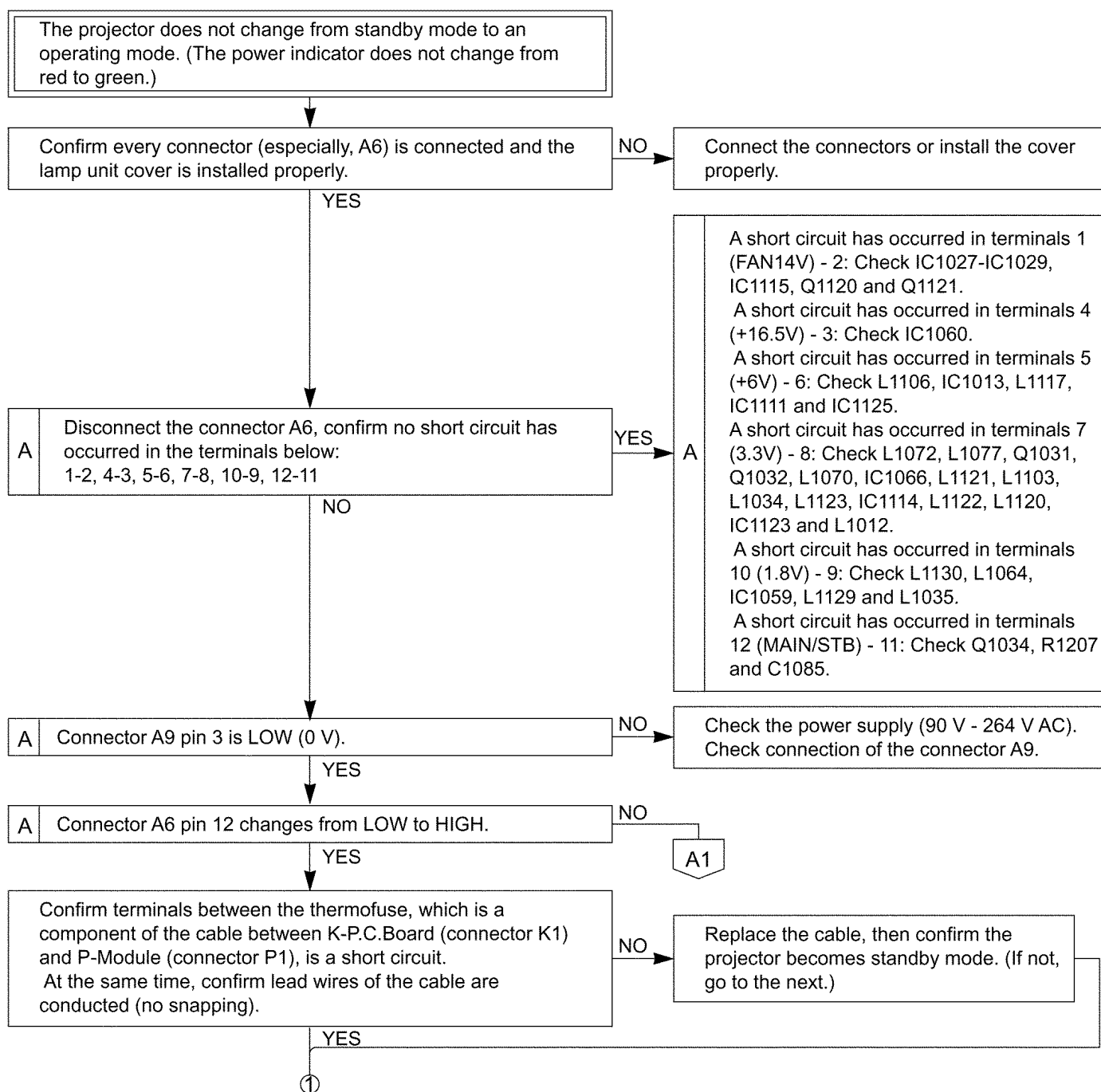


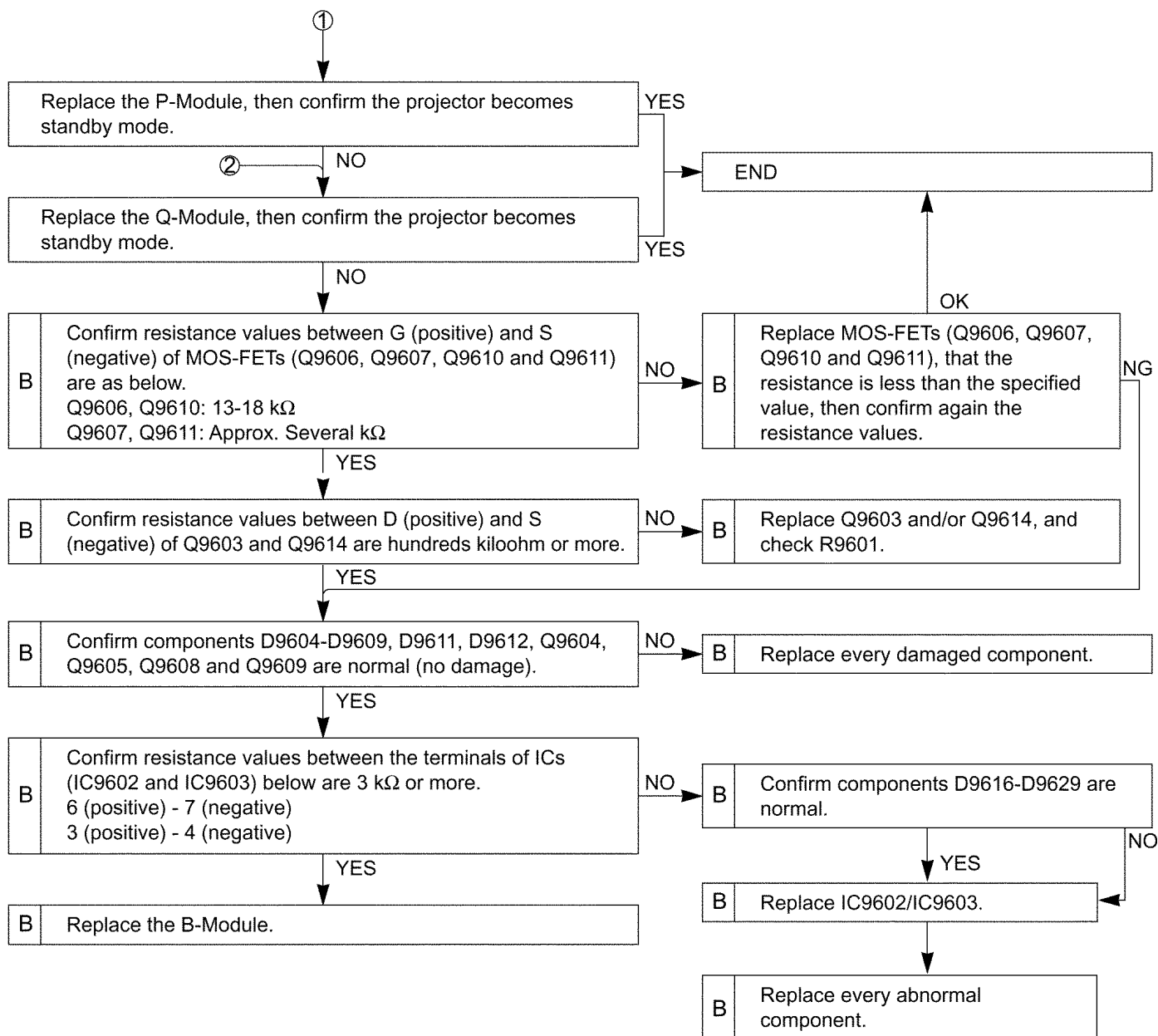
The letter of the alphabet indicates the P.C.Board or Module name.

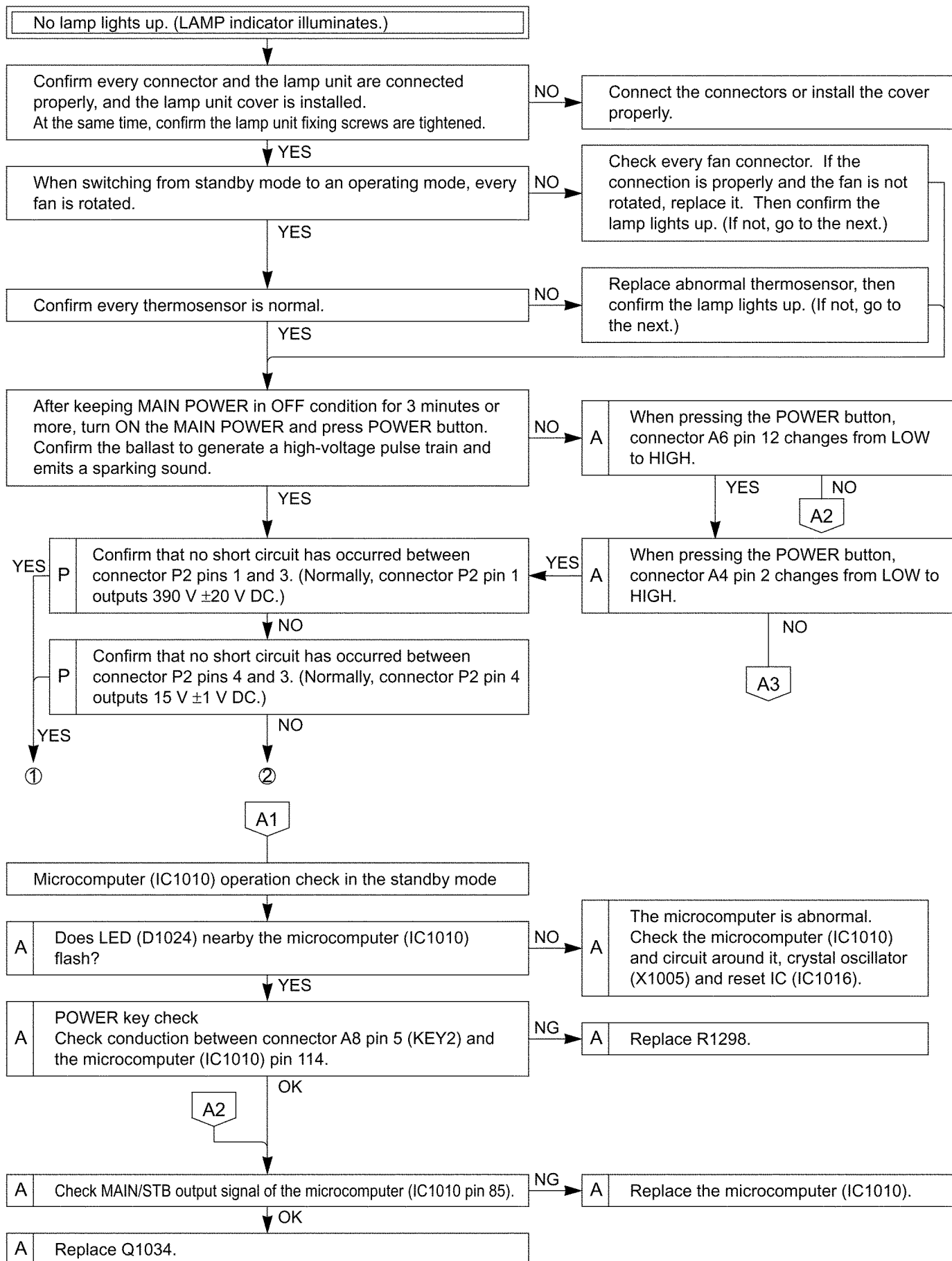
(Example) A: A-P.C.Board, B: B-Module

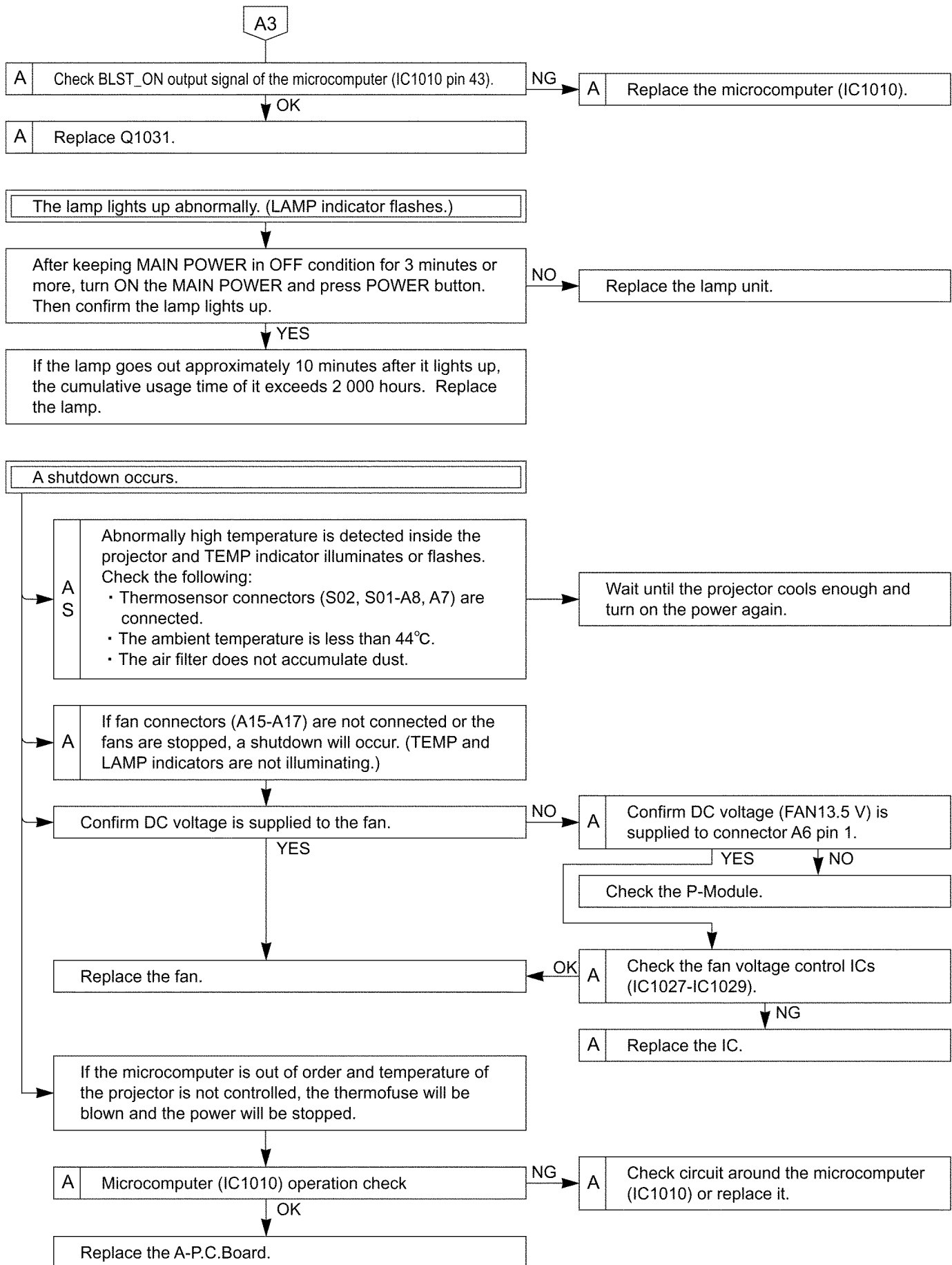
If replacing A-P.C.Board (assembly), read the ROM data from the old P.C.Board and write it in the new one according to the section 8.6. "Software for Adjustment". At this time, if the readout from the old P.C.Board does not succeed, remove IC1061 and IC1063 from the old P.C.Board and install them on the new one. If replacing A-P.C.Board (assembly), adjust RGB Input Level according to the chapter 8.8. "Input Level Adjustment (RGB)".

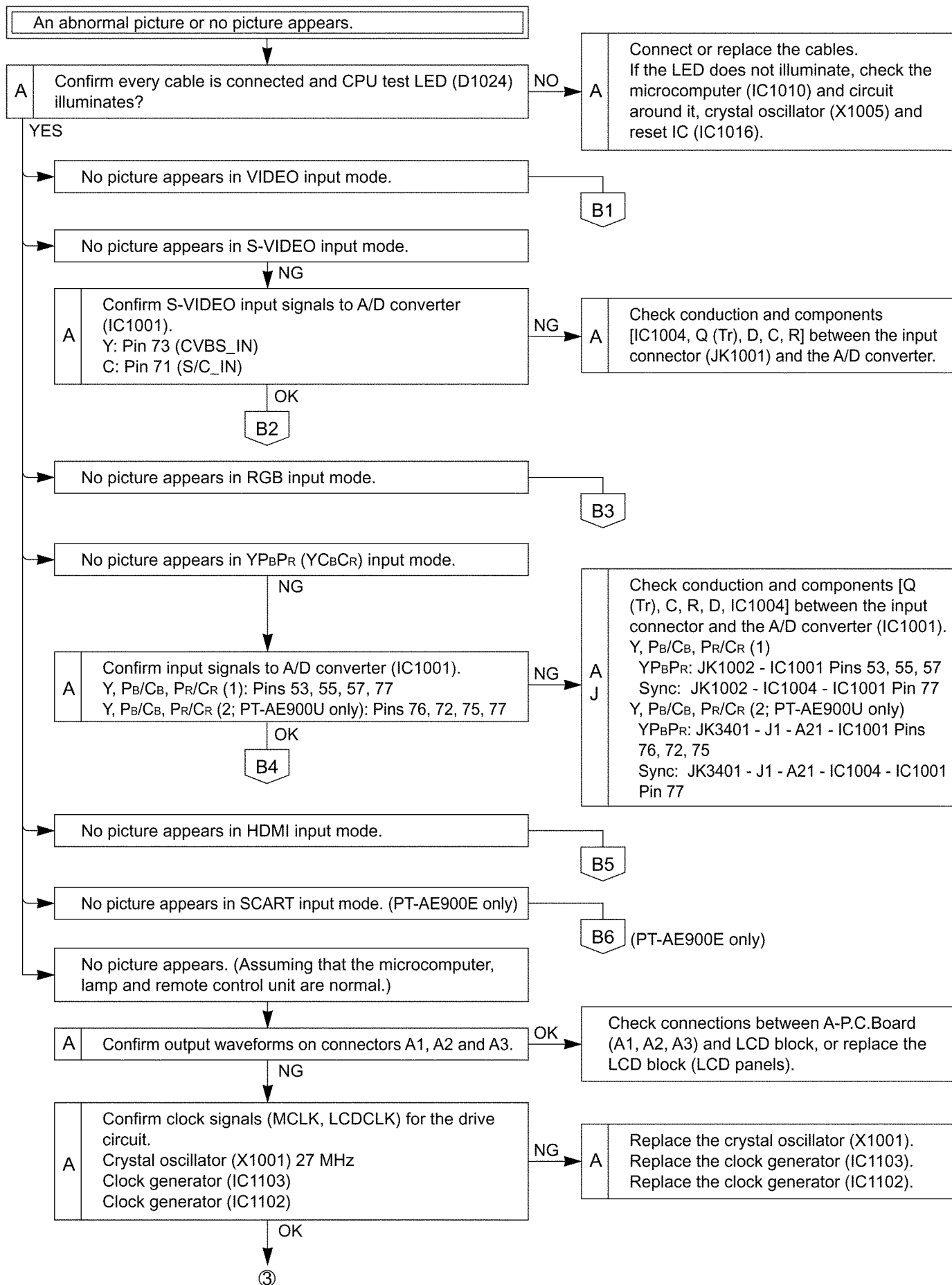


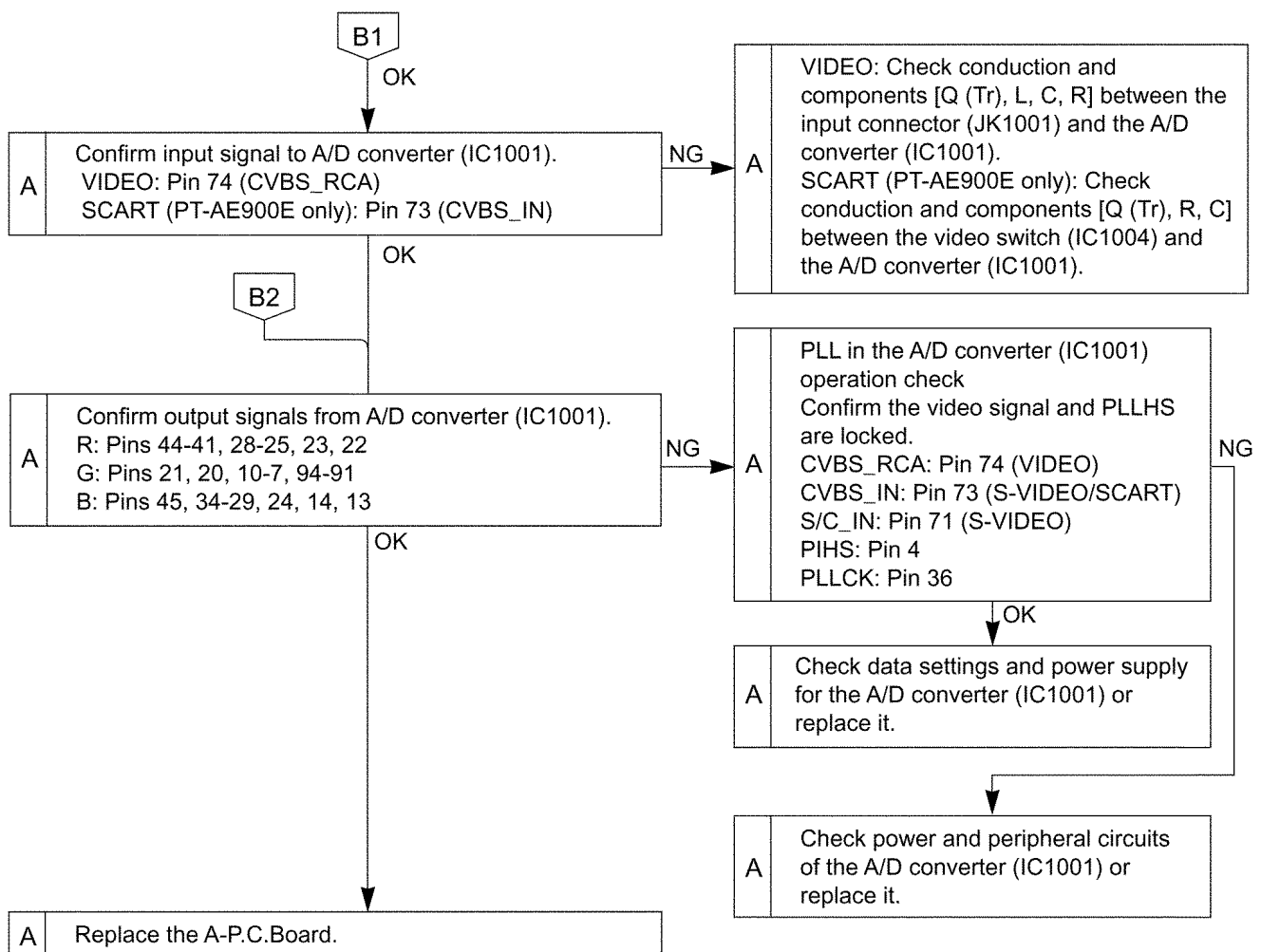
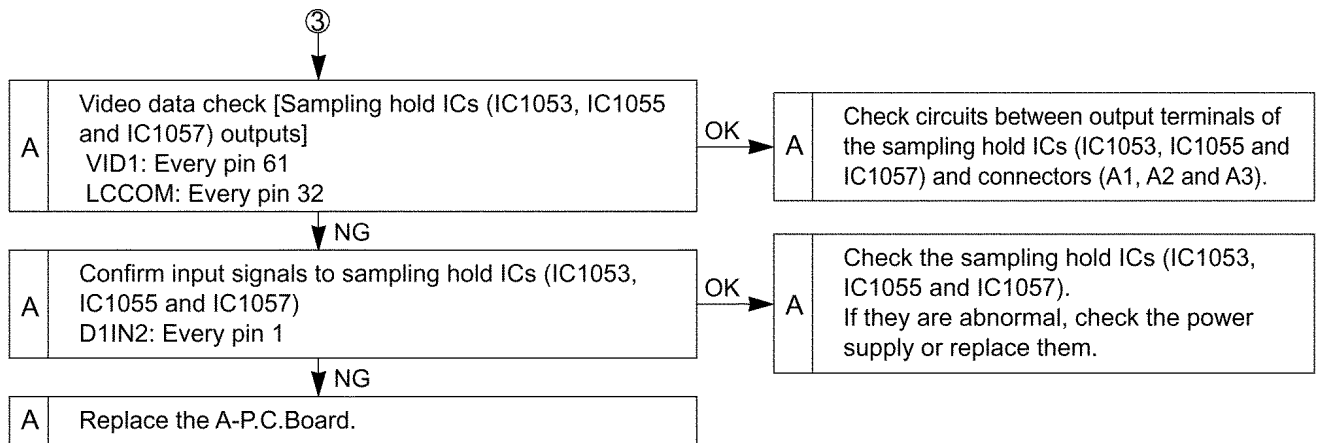


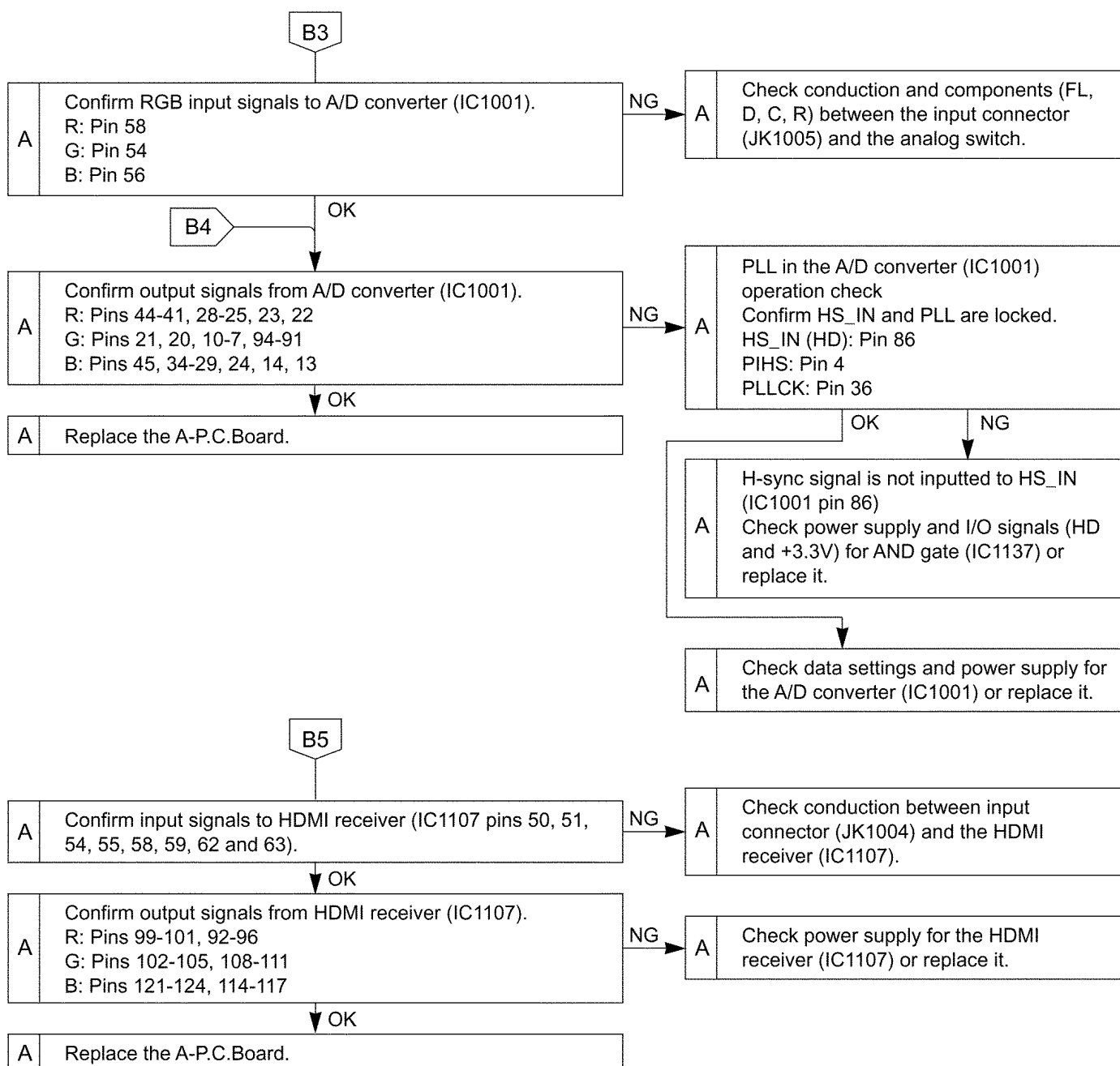


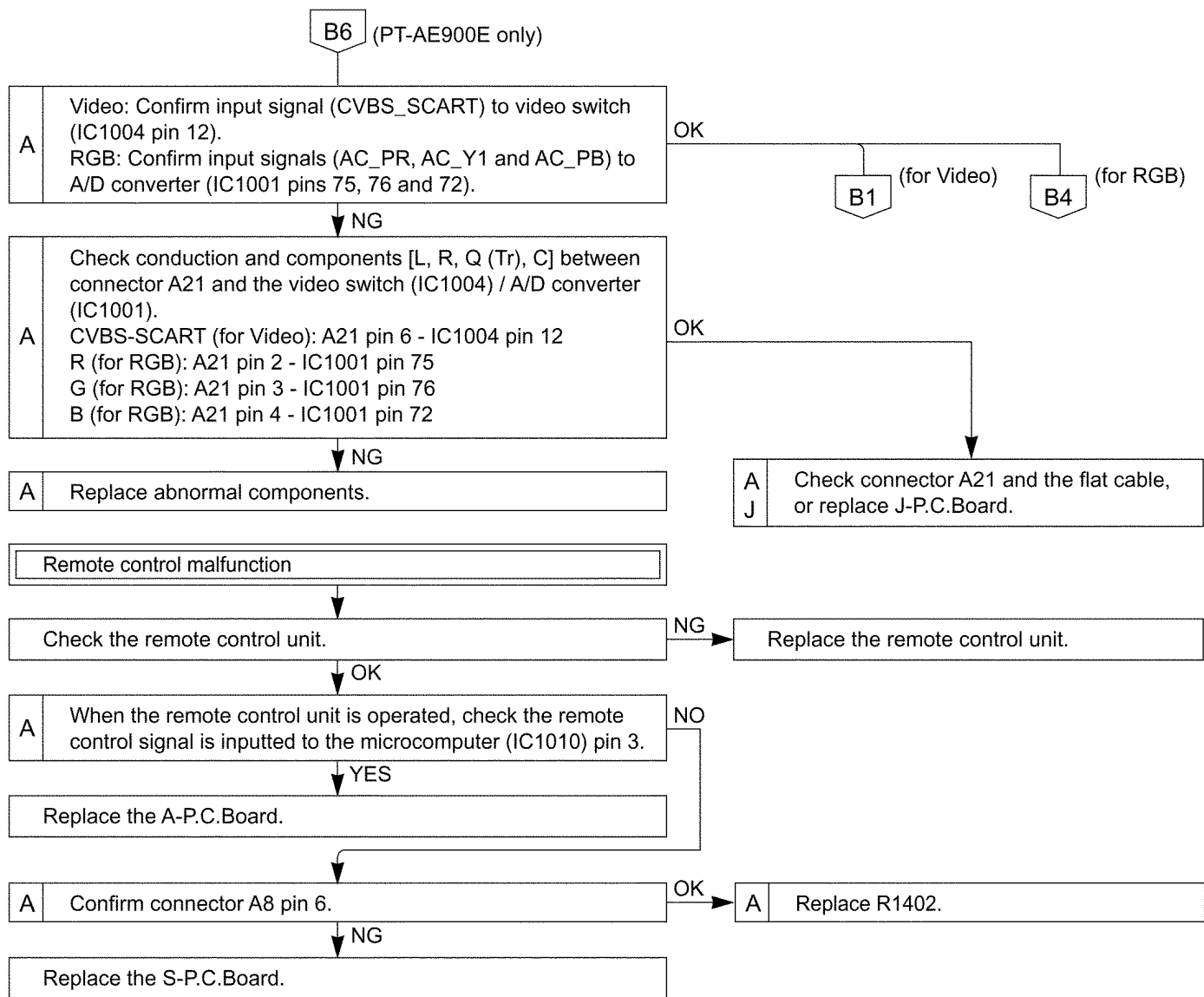








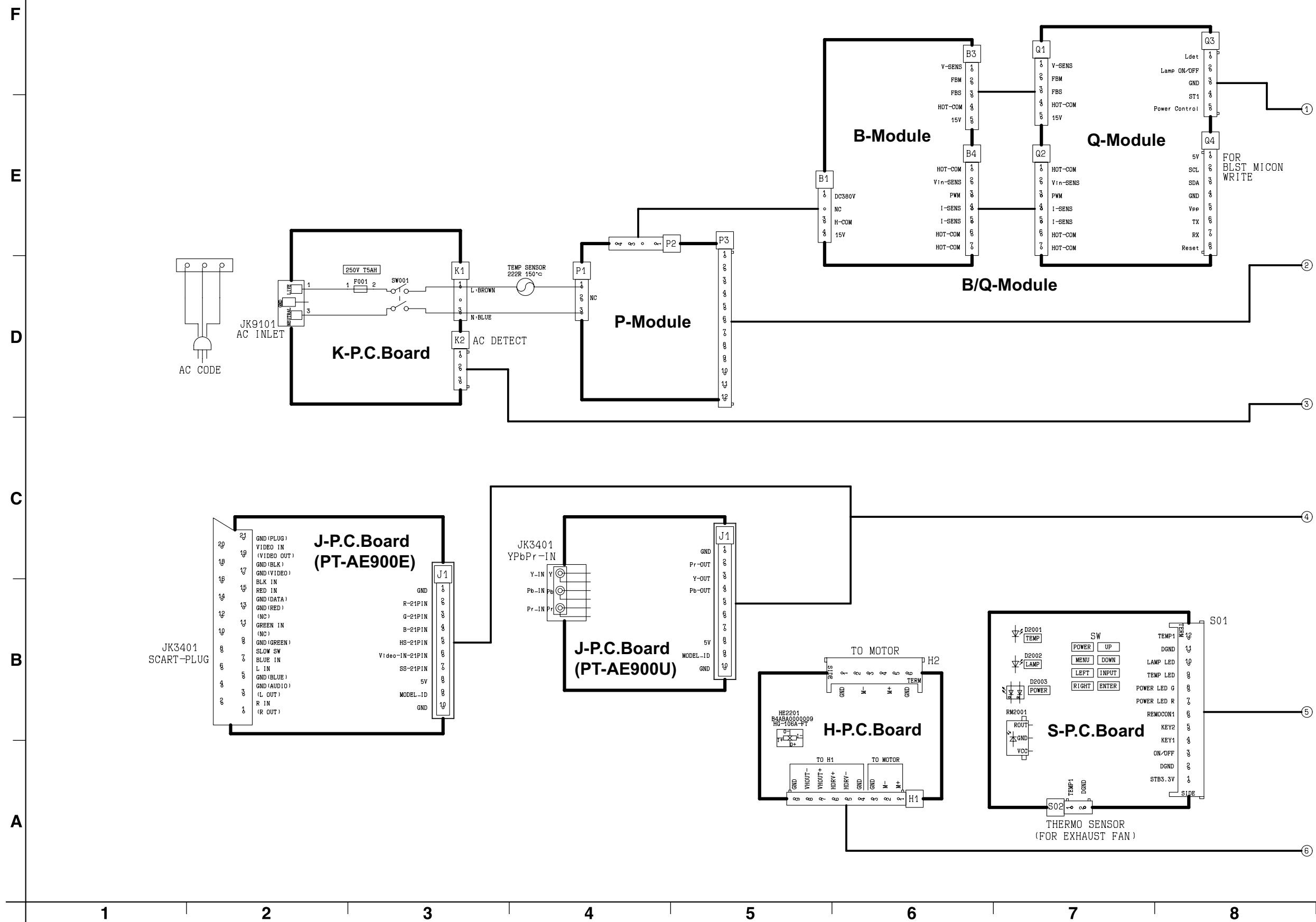




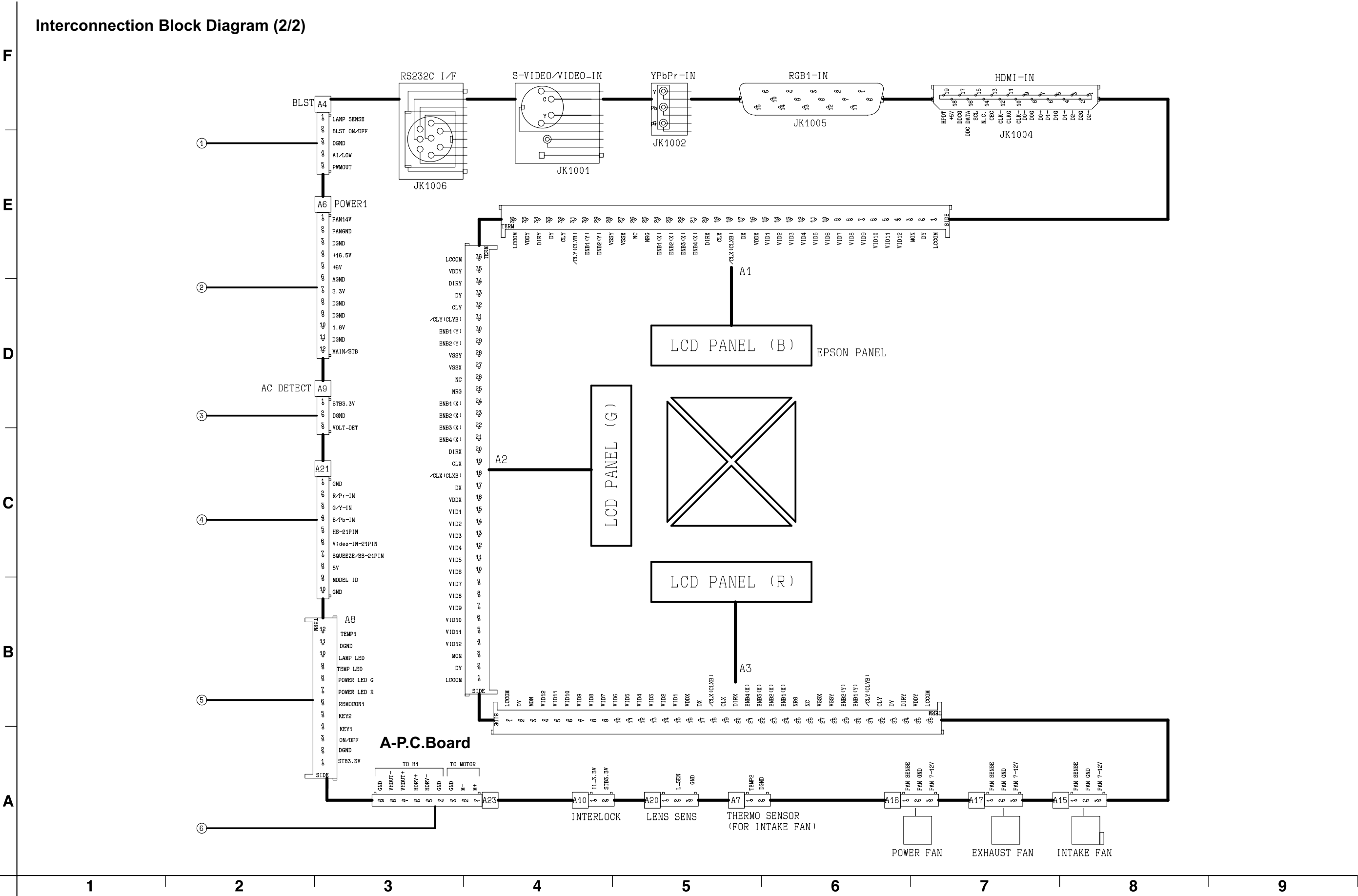
9 Interconnection Block Diagram

9.1. Interconnection Block Diagram (1/2)

Interconnection Block Diagram (1/2)

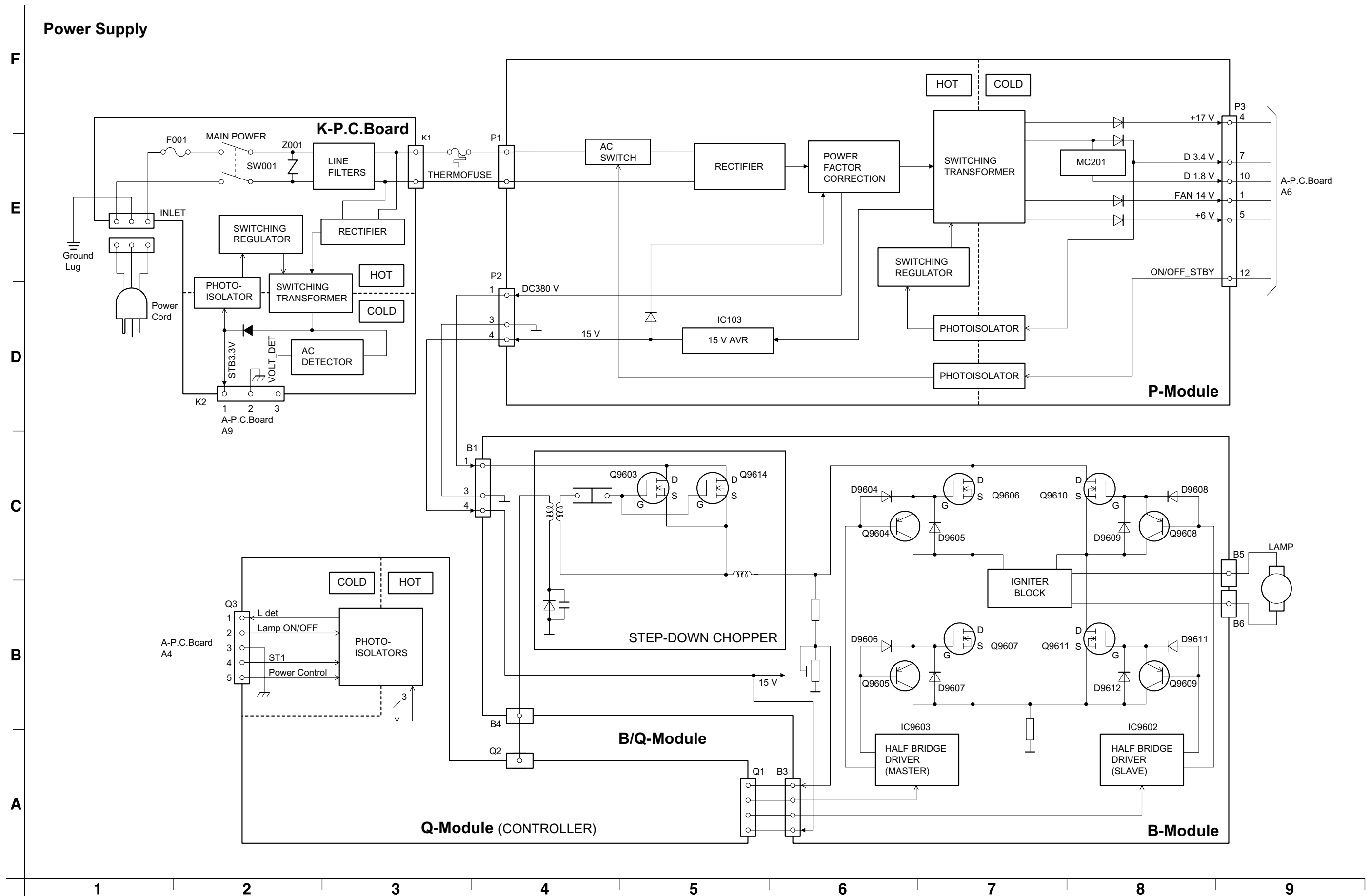


9.2. Interconnection Block Diagram (2/2)

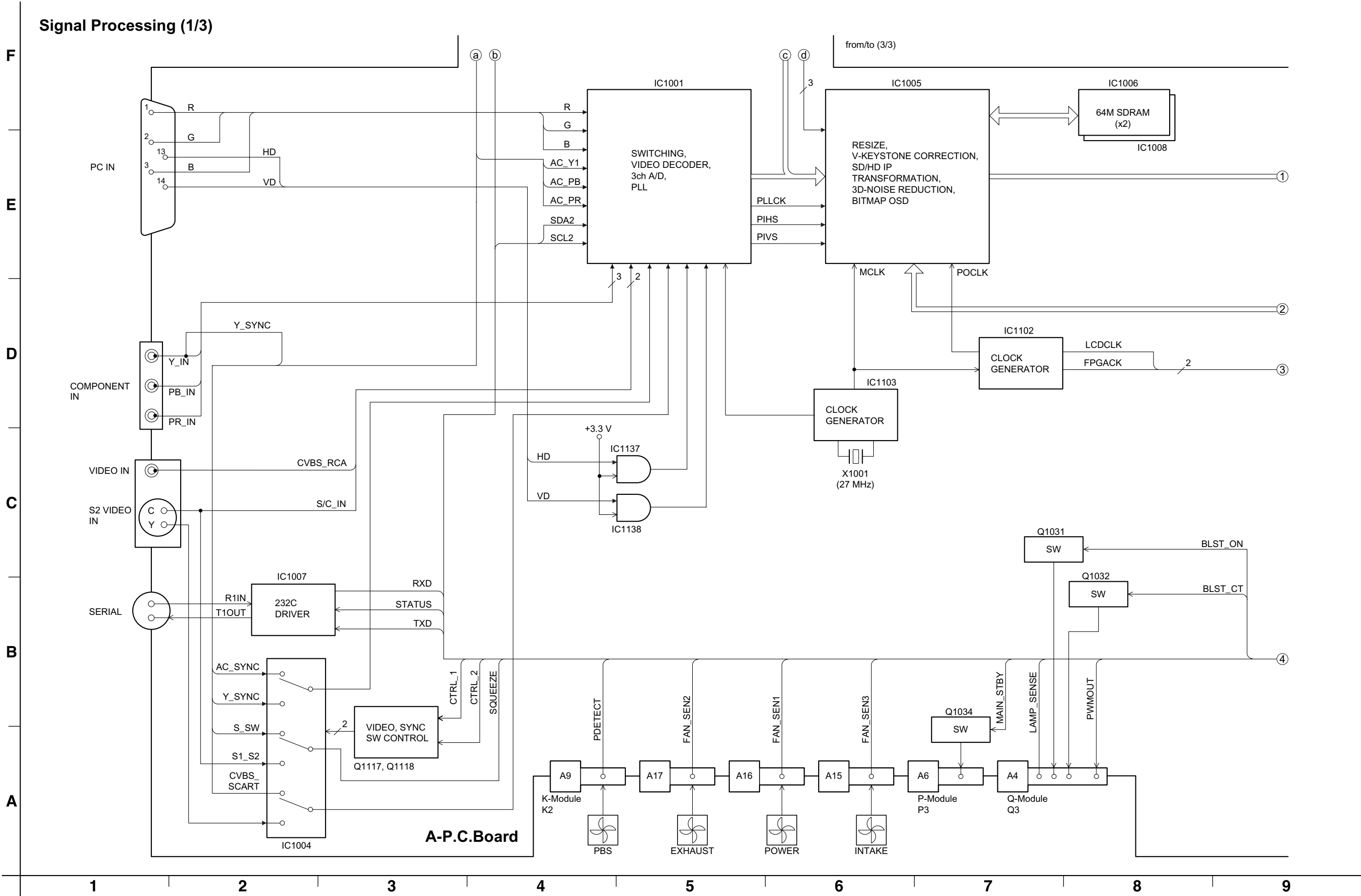


10 Block Diagram

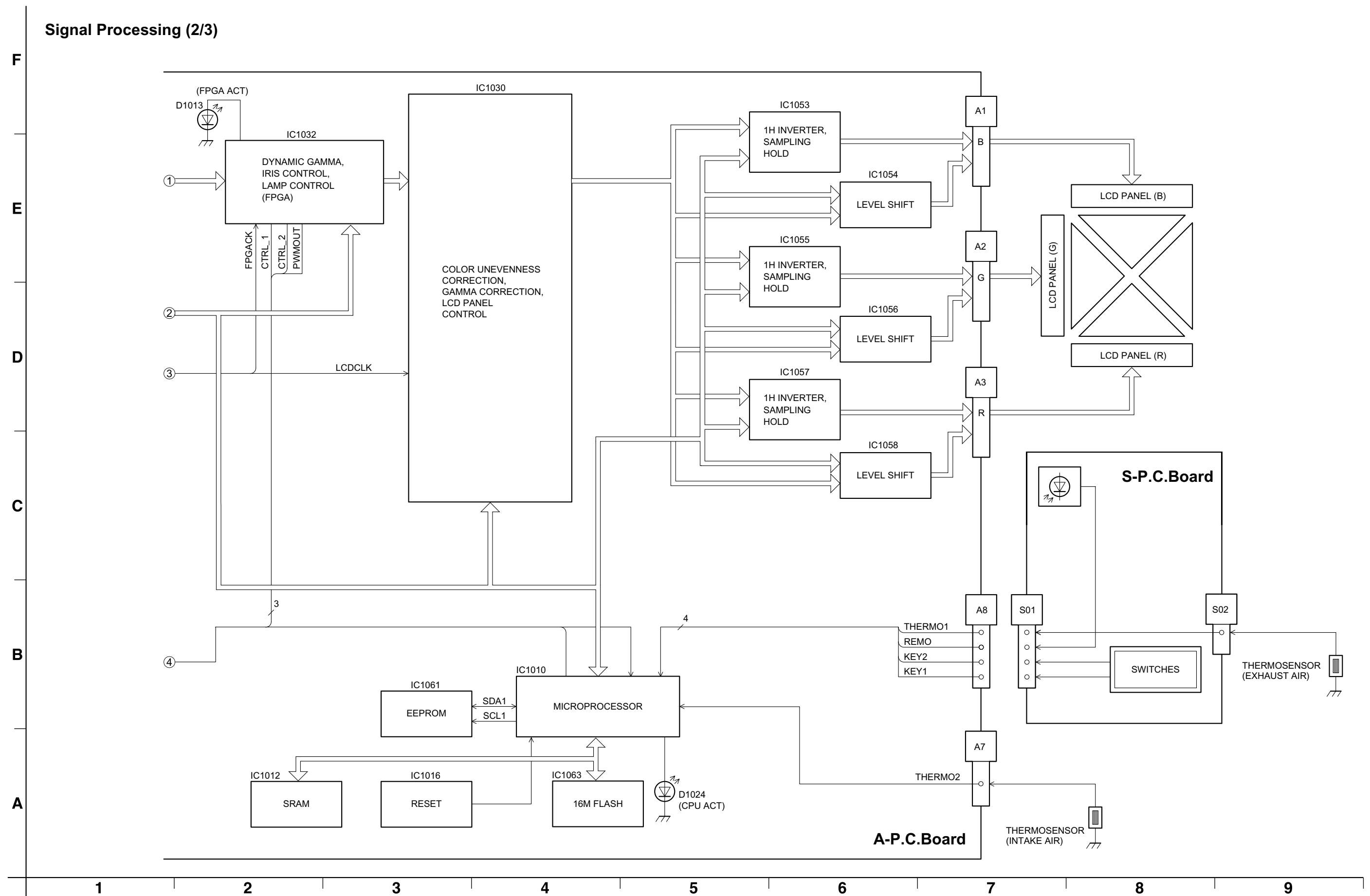
10.1. Power Supply



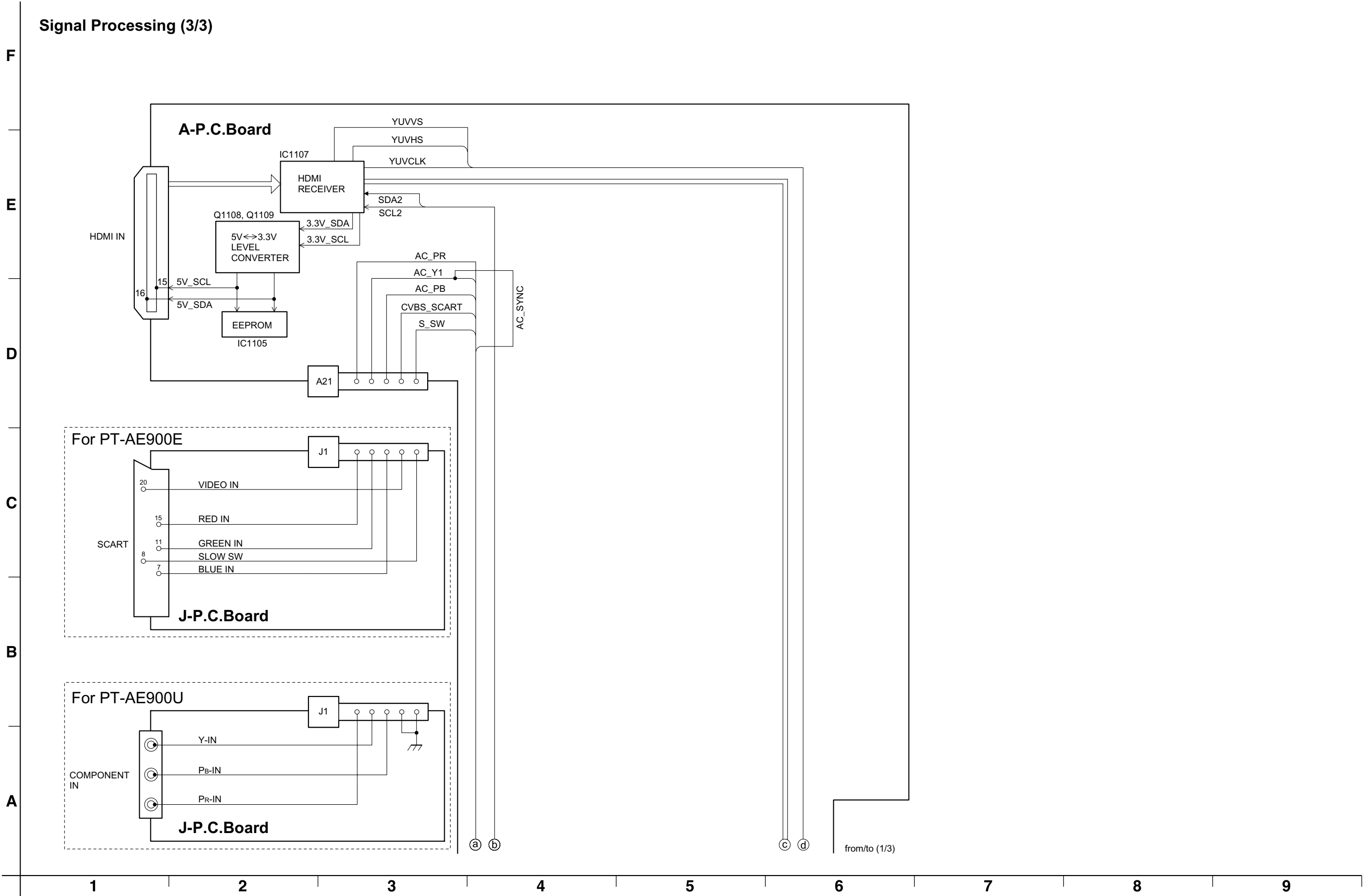
10.2. Signal Processing (1/3)



10.3. Signal Processing (2/3)



10.4. Signal Processing (3/3)



11 Schematic Diagram


Schematic Diagram for Model PT-AE900U

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Schematic Diagram for Model PT-AE900E

Important Safety Notice

Components identified by the international symbol  have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified ones.


Notes:

1. Resistor


All the resistors are carbon 1/4W resistors, unless marked as follows: The unit of resistance is an OHM [Ω] (K=1 000 M=1 000 000).


 : Nonflammable

 : Metal Oxide


 : Solid

 : Metal Film


 : Wire Wound


 : Fuse


2. Capacitor


 : Temperature Compensation


 : Electrolytic


 : Polyester

 : Bipolar

 : Metalized Polyester

 : Dipped Tantalum


 : Polypropylene

 : Z-Type

3. Coil

The unit of inductance is a H, unless otherwise noted.





4. Test Point

 : Test Point

5. Voltage Measurement

The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to the standard condition.

6. Color code for the links between diagrams and circuit boards

From/To		To/From	Color code
Block diagram		Schematic diagram	Magenta
Schematic diagram		Schematic diagram	Green
Schematic diagram		Circuit boards	Yellow
Schematic diagram		Waveforms	Cyan (Light blue)

7. HOT and COLD indications

The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the precautions below:

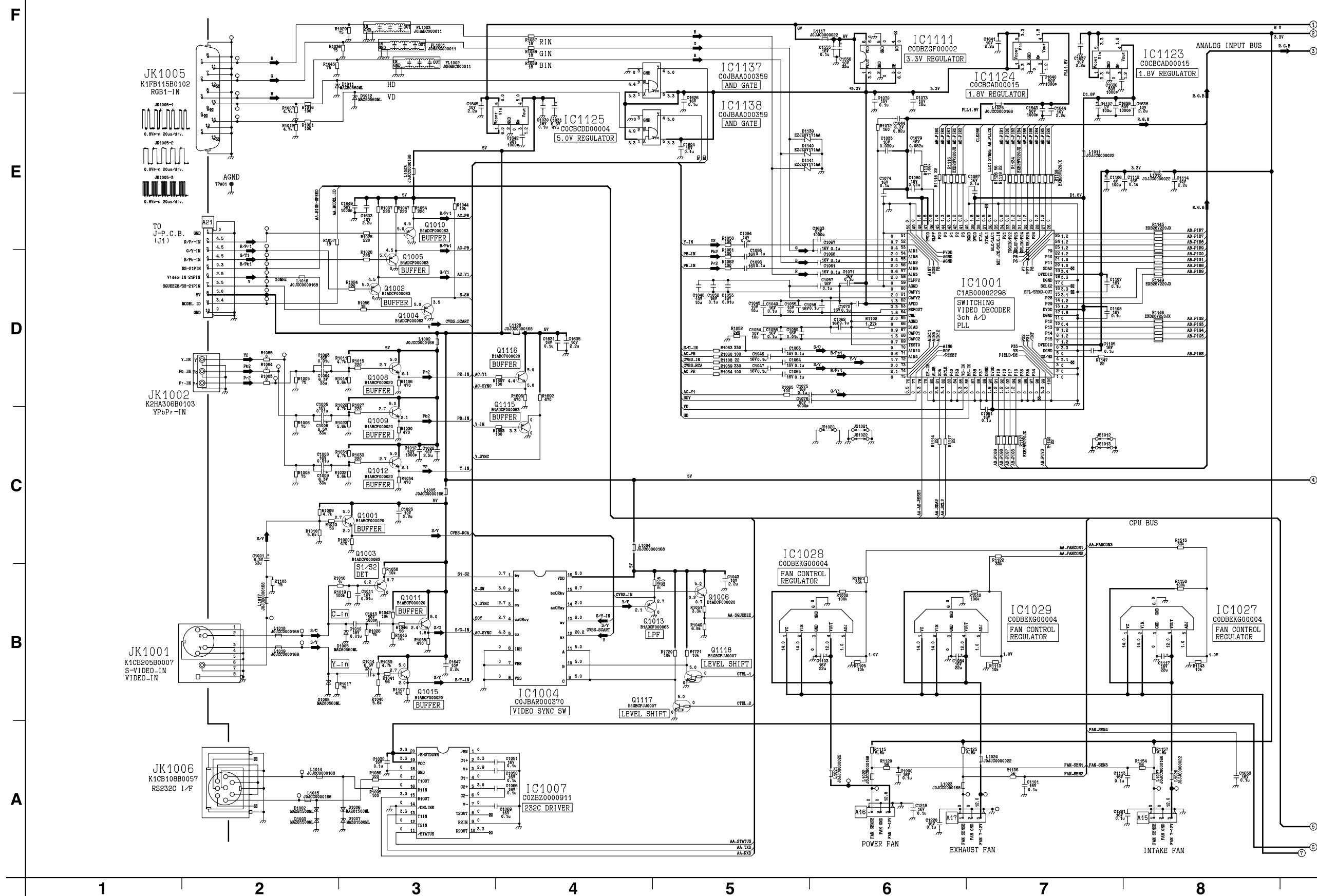
8. This schematic diagram is the latest at the time of printing and the subject to change without notice.

Precautions:

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow. Connect the ground of instruments to the ground of the circuit being measured.
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

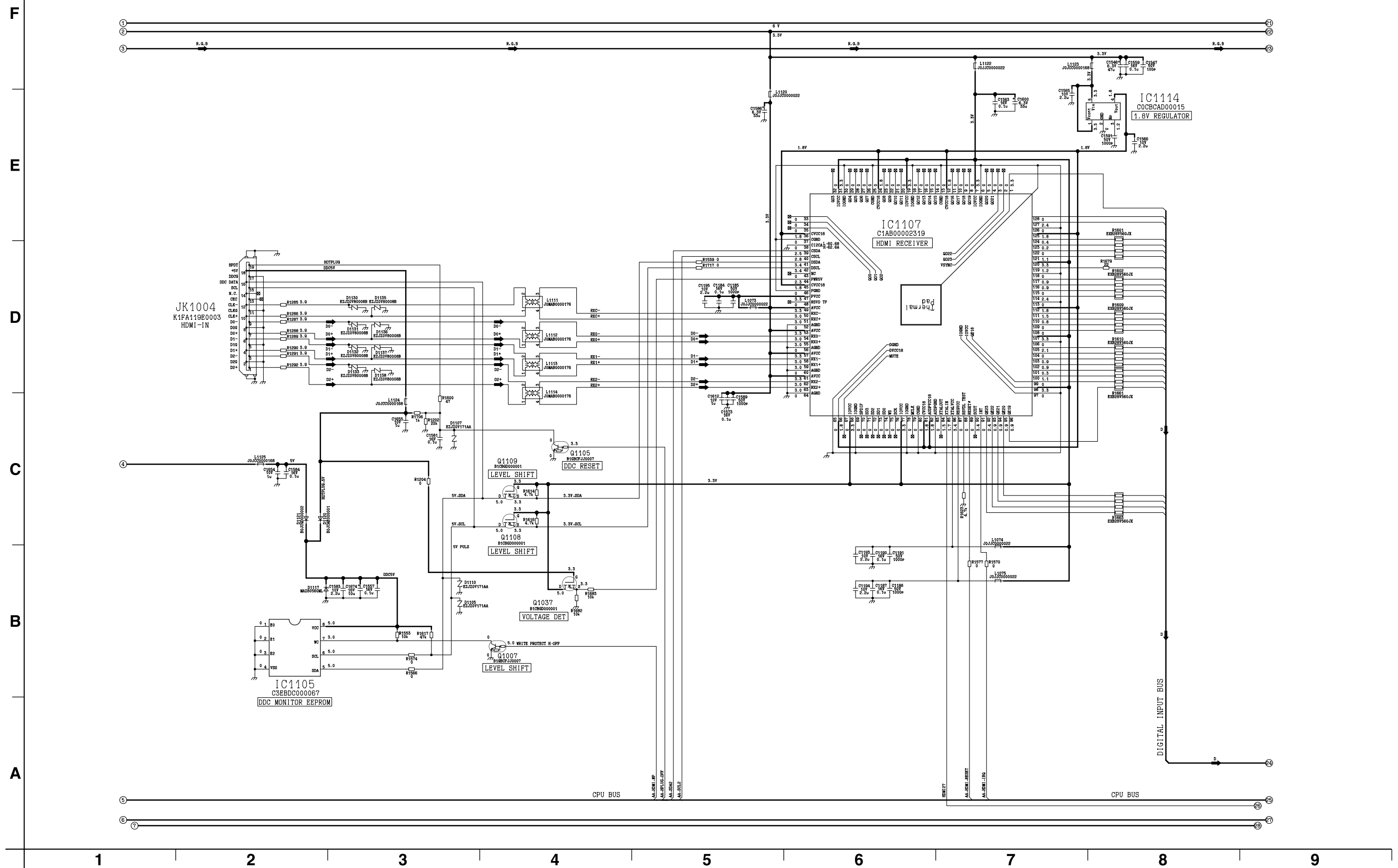
11.1. A-P.C.Board (1/8)

A-P.C.Board TXANP01VKB4 (1/8)



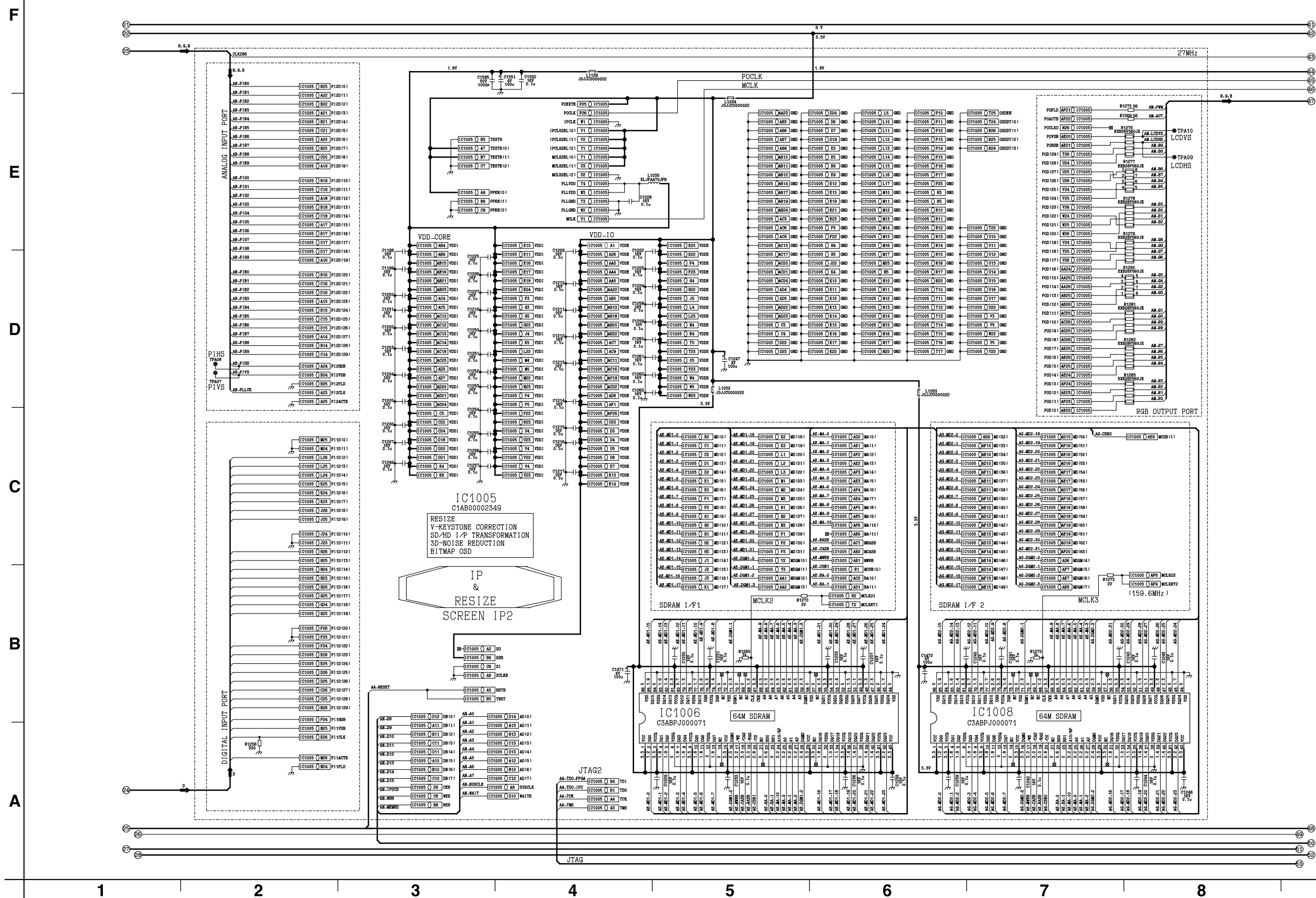
11.2. A-P.C.Board (2/8)

A-P.C.Board TXANP01VKB4 (2/8)



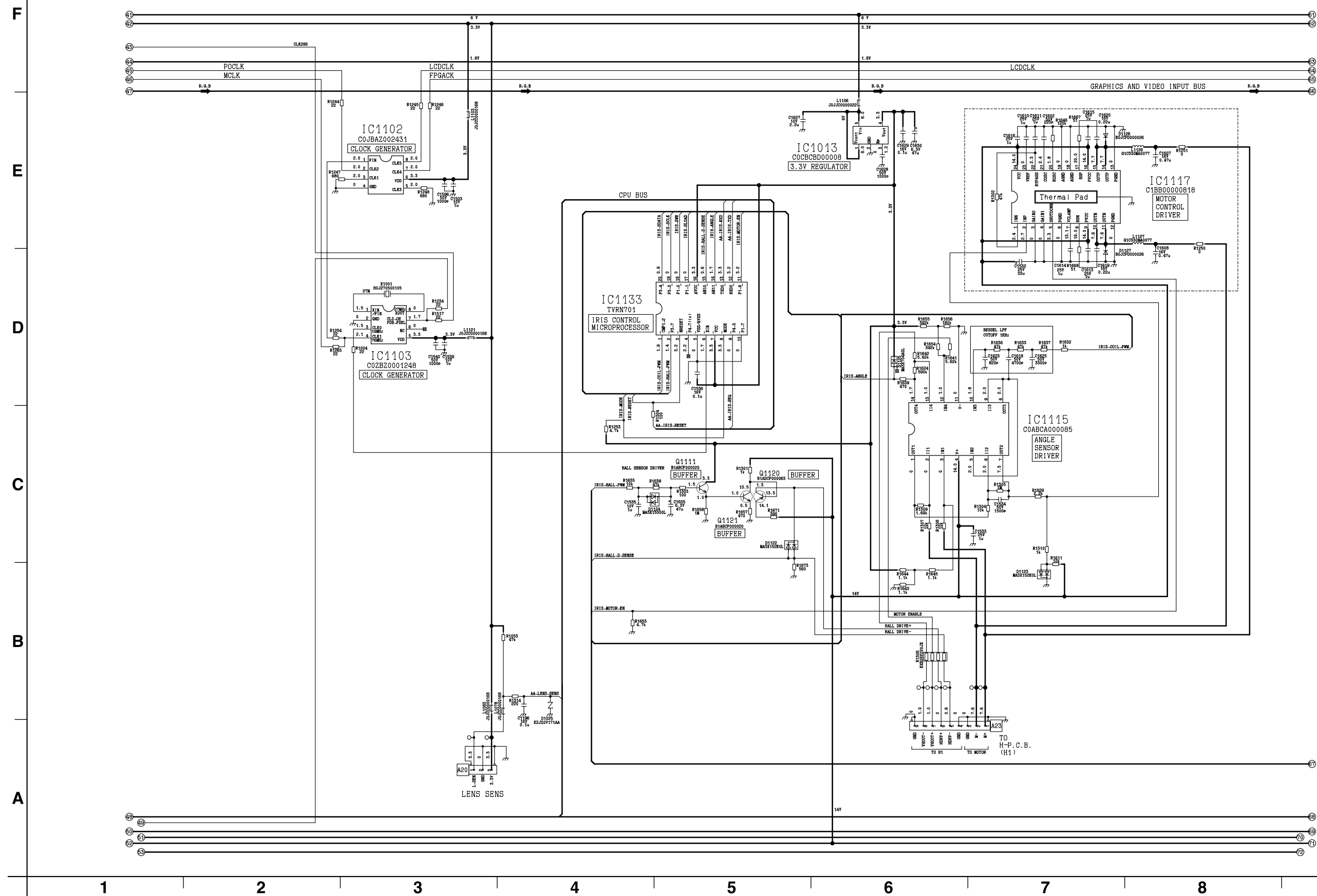
11.3. A-P.C.Board (3/8)

A-P.C.Board TXANP01VKB4 (3/8)



11.4. A-P.C.Board (4/8)

A-P.C.Board TXANP01VKB4 (4/8)

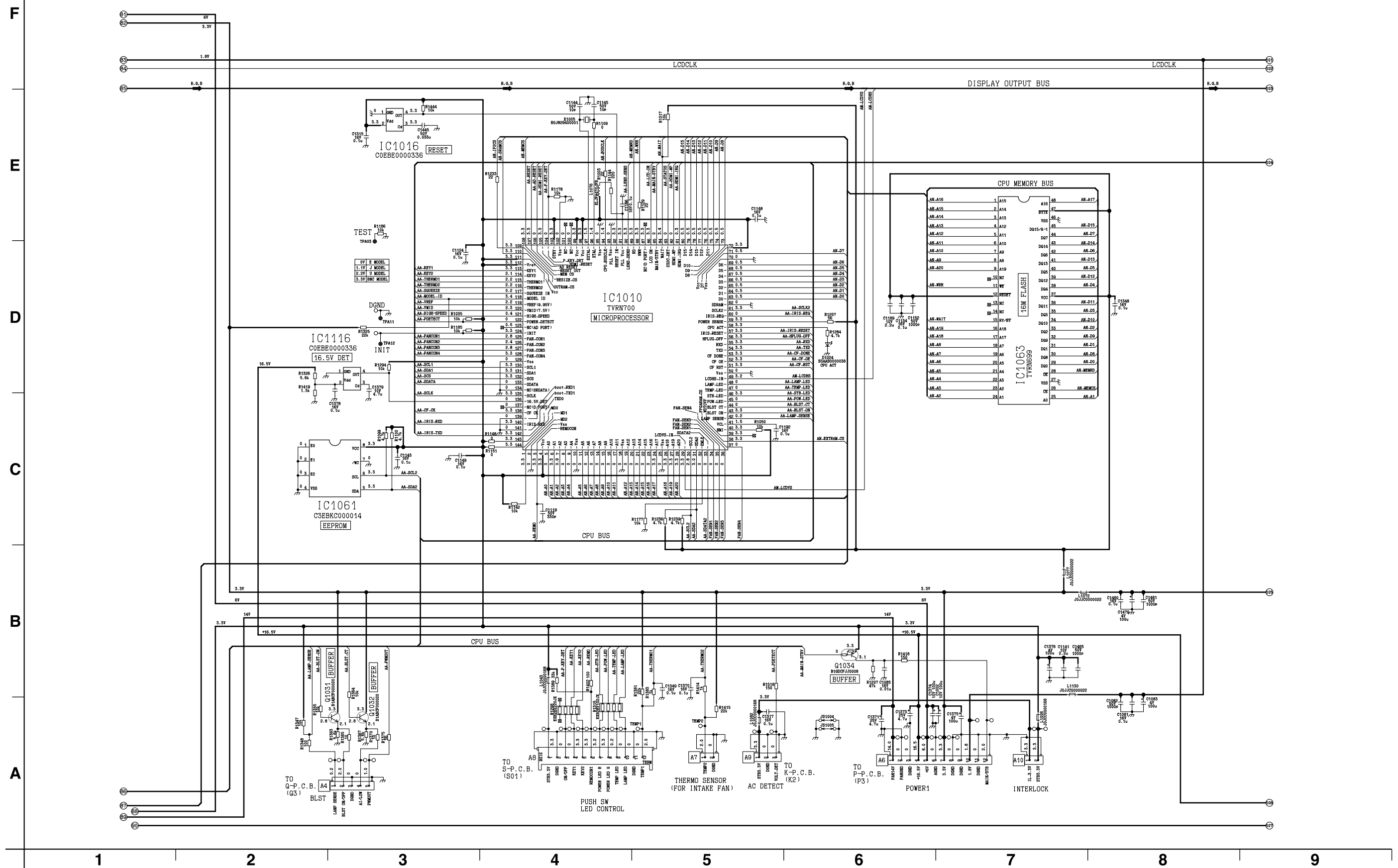


A-P.C.Board TXANP01VKB4 (5/8)



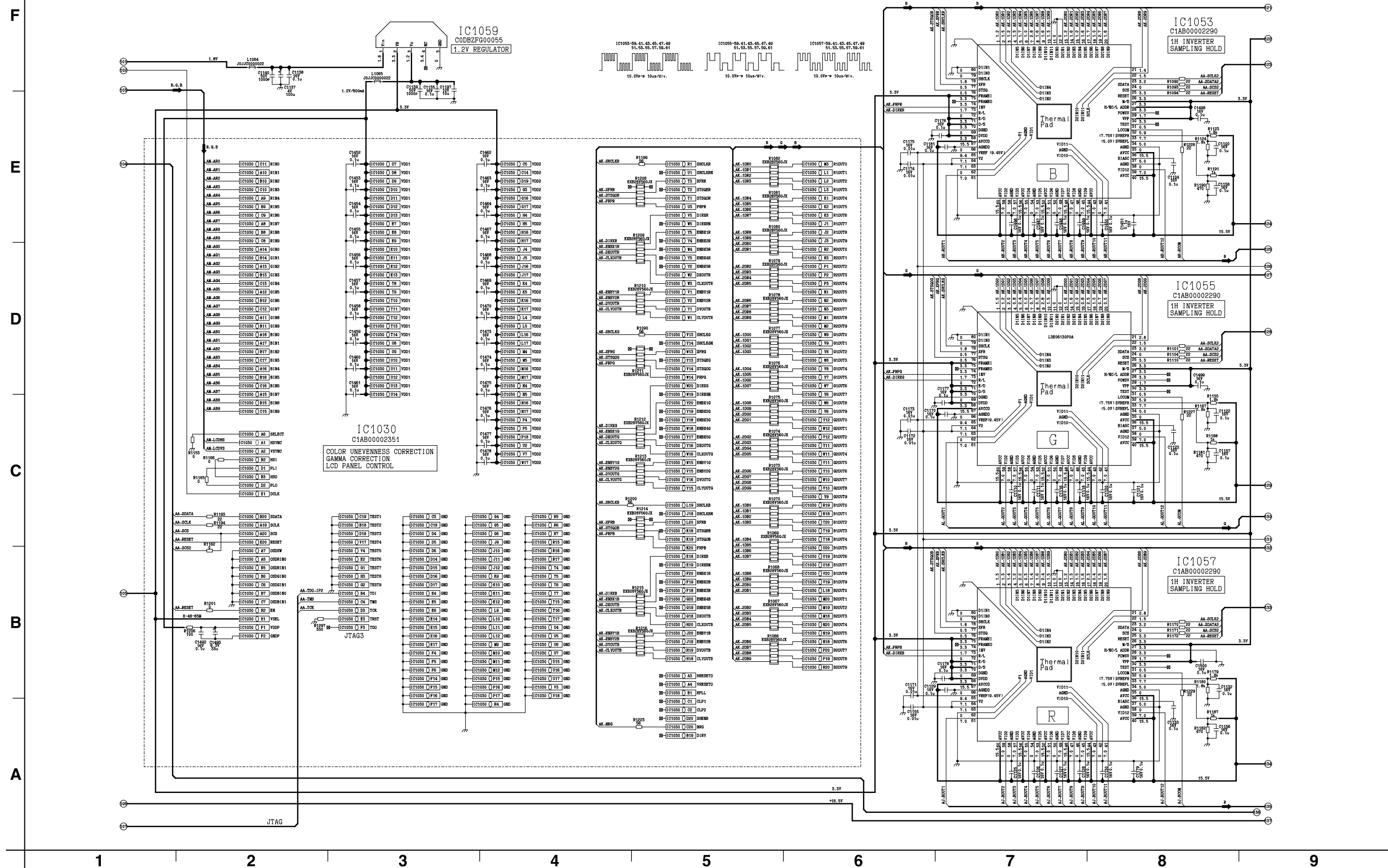
11.6. A-P.C.Board (6/8)

A-P.C.Board TXANP01VKB4 (6/8)



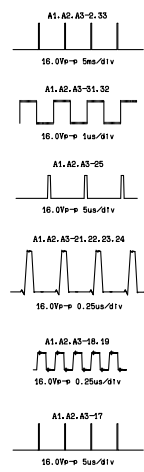
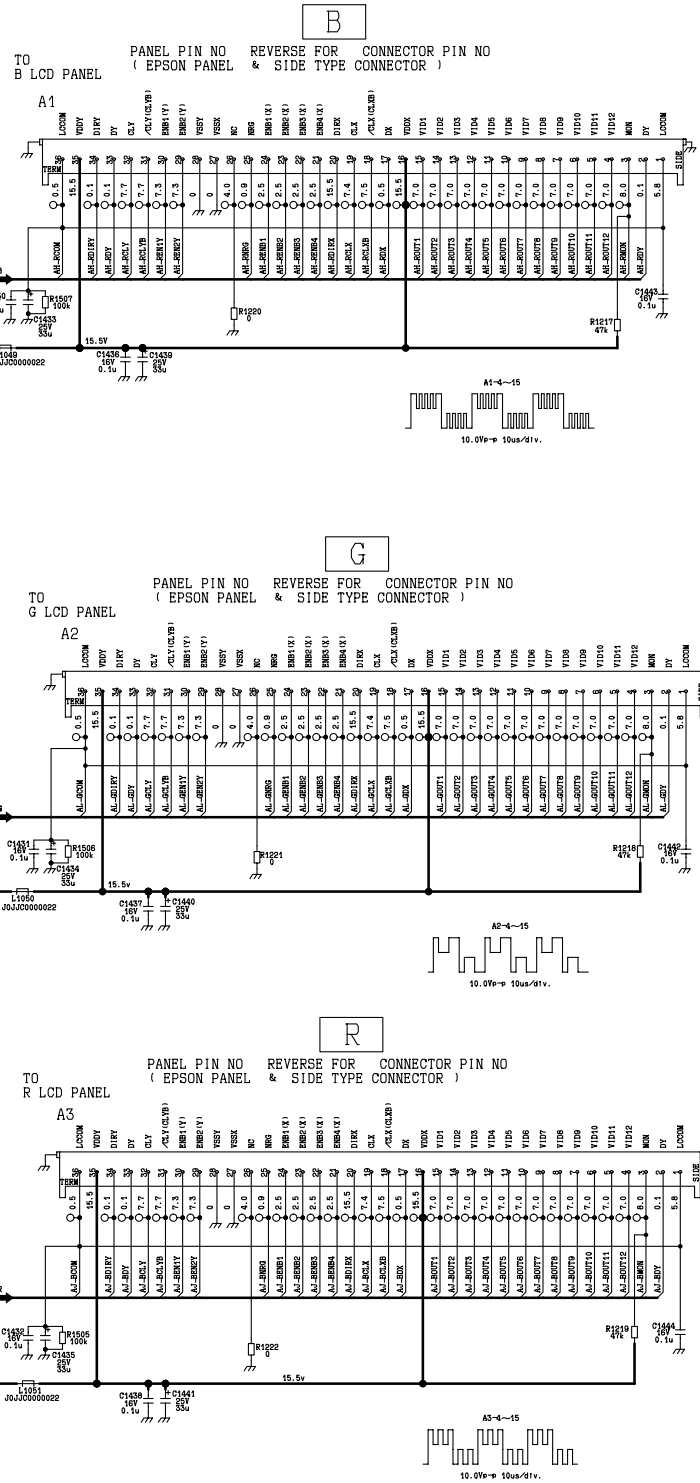
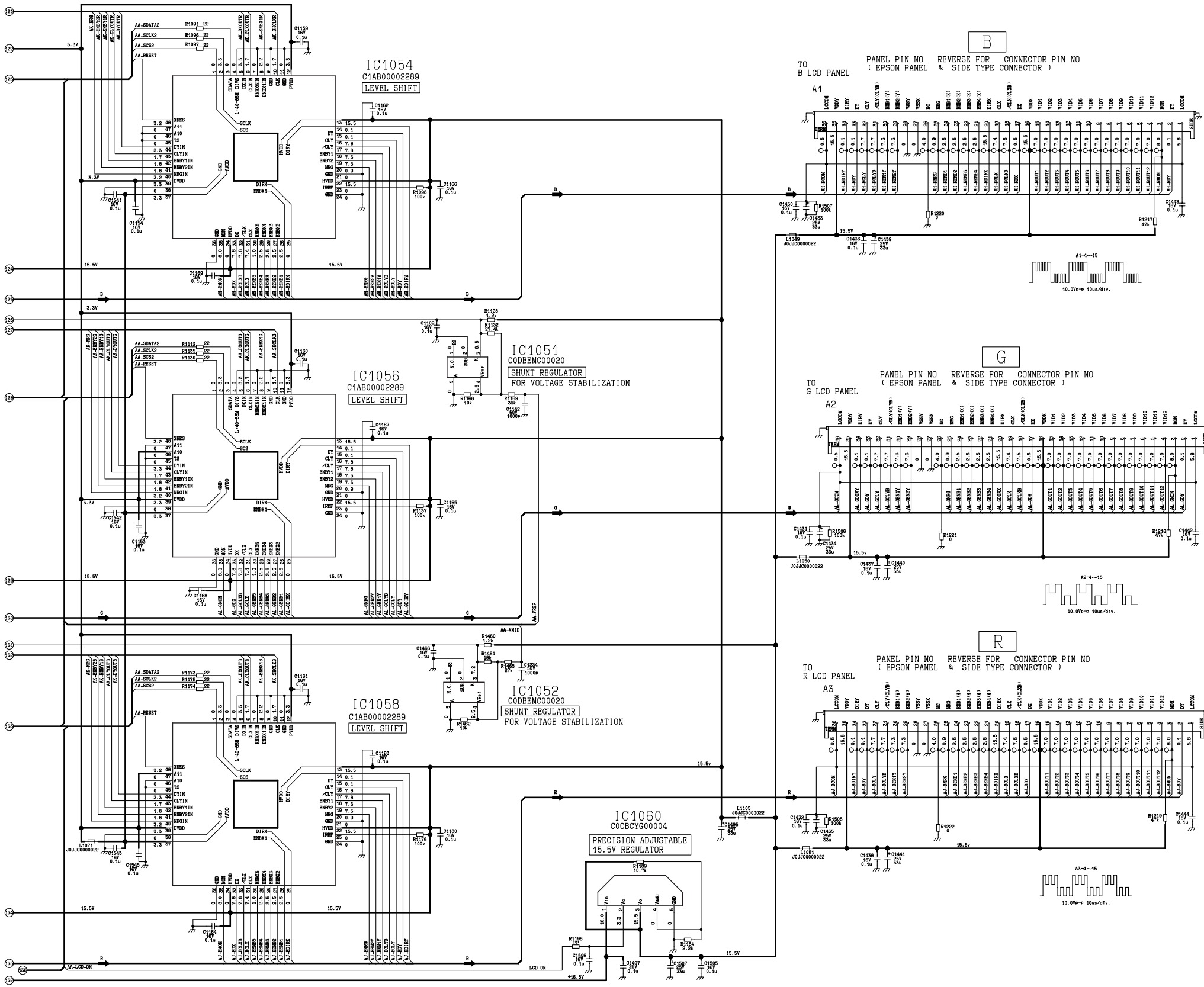
11.7. A-P.C.Board (7/8)

A-P.C.Board TXANP01VKB4 (7/8)

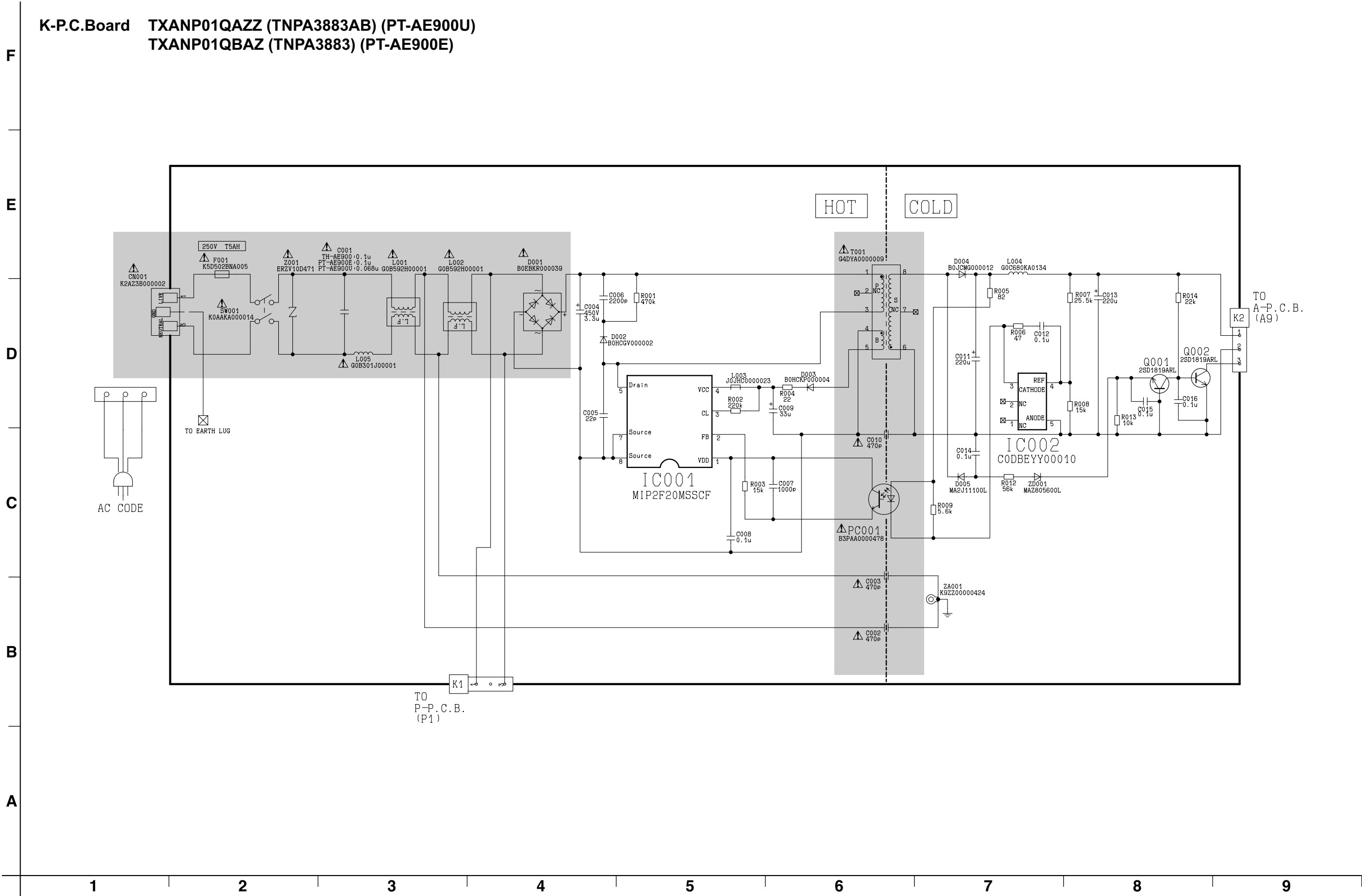


11.8. A-P.C.Board (8/8)

A-P.C.Board TXANP01VKB4 (8/8)

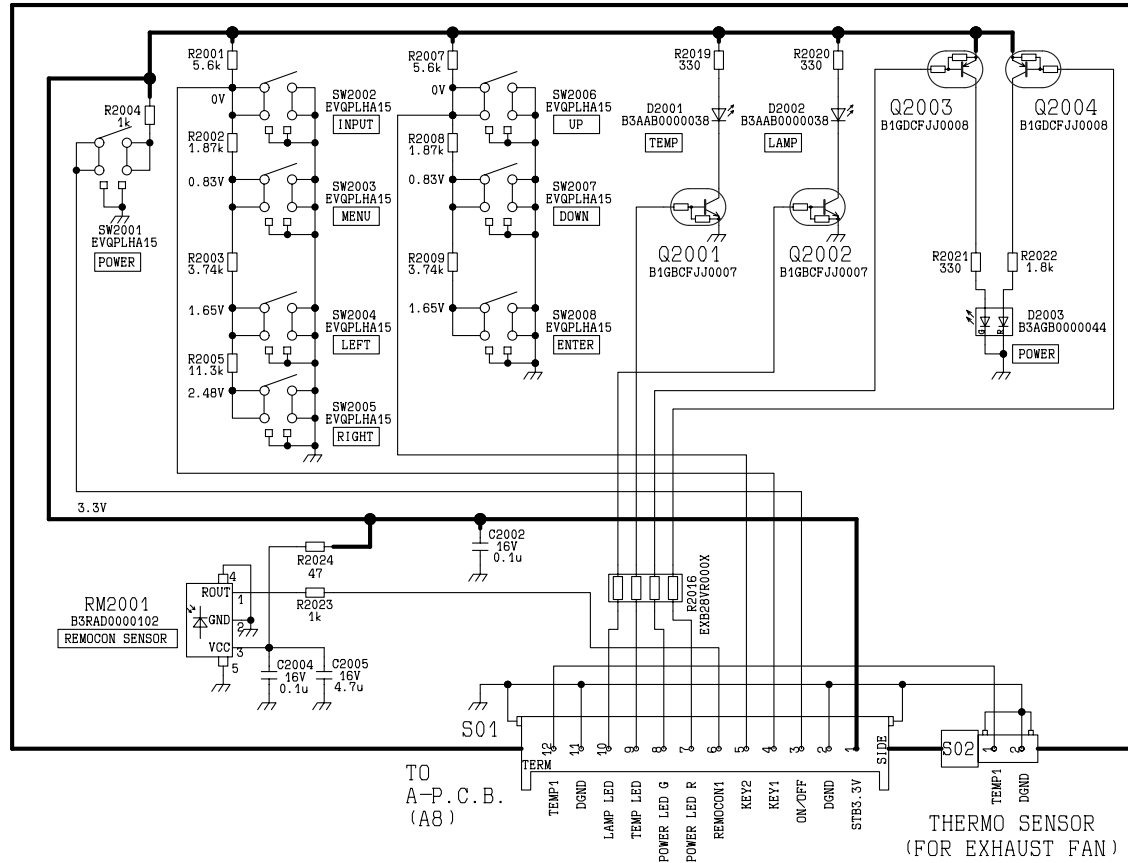


11.9. K-P.C.Board

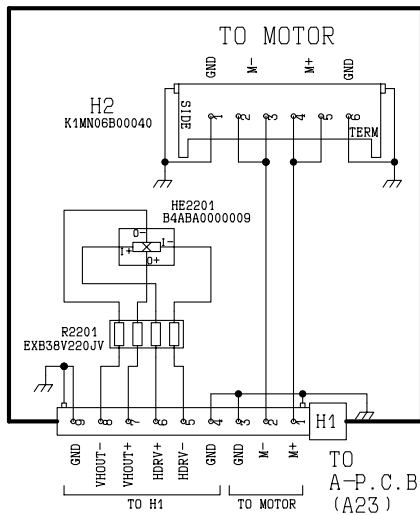


11.10. J-P.C.Board,S-P.C.Board, H-P.C.Board

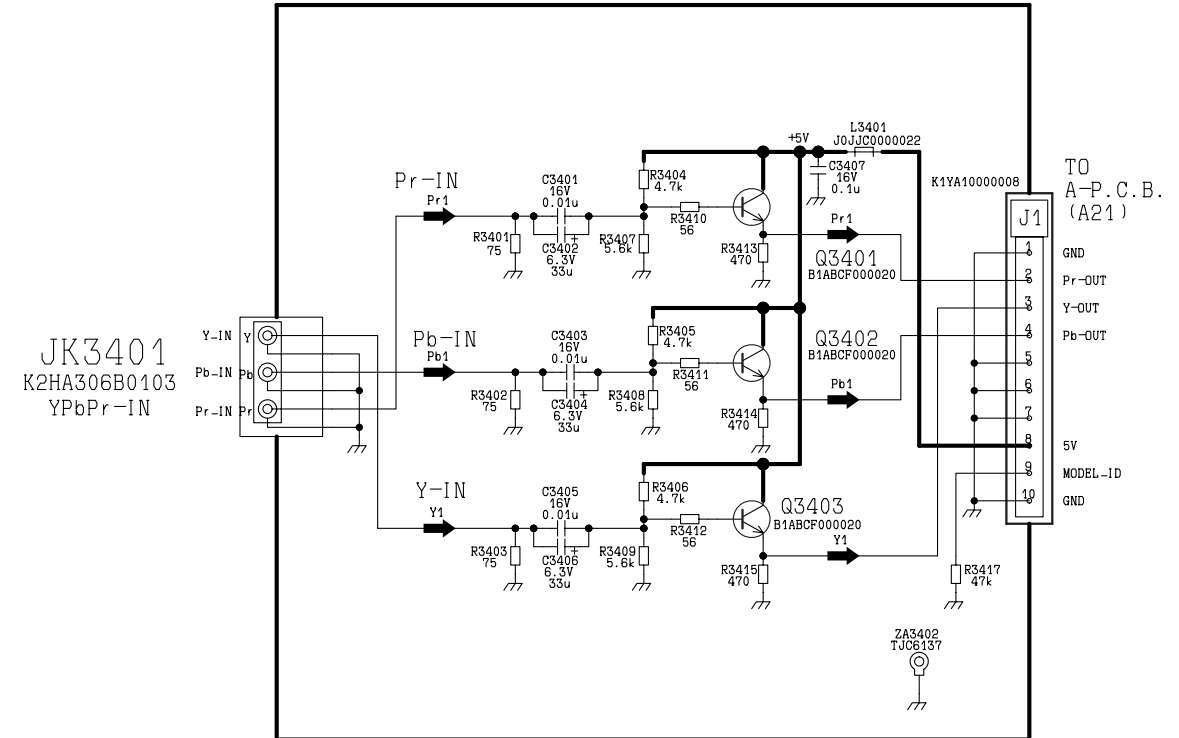
S-P.C.Board TNPA3711



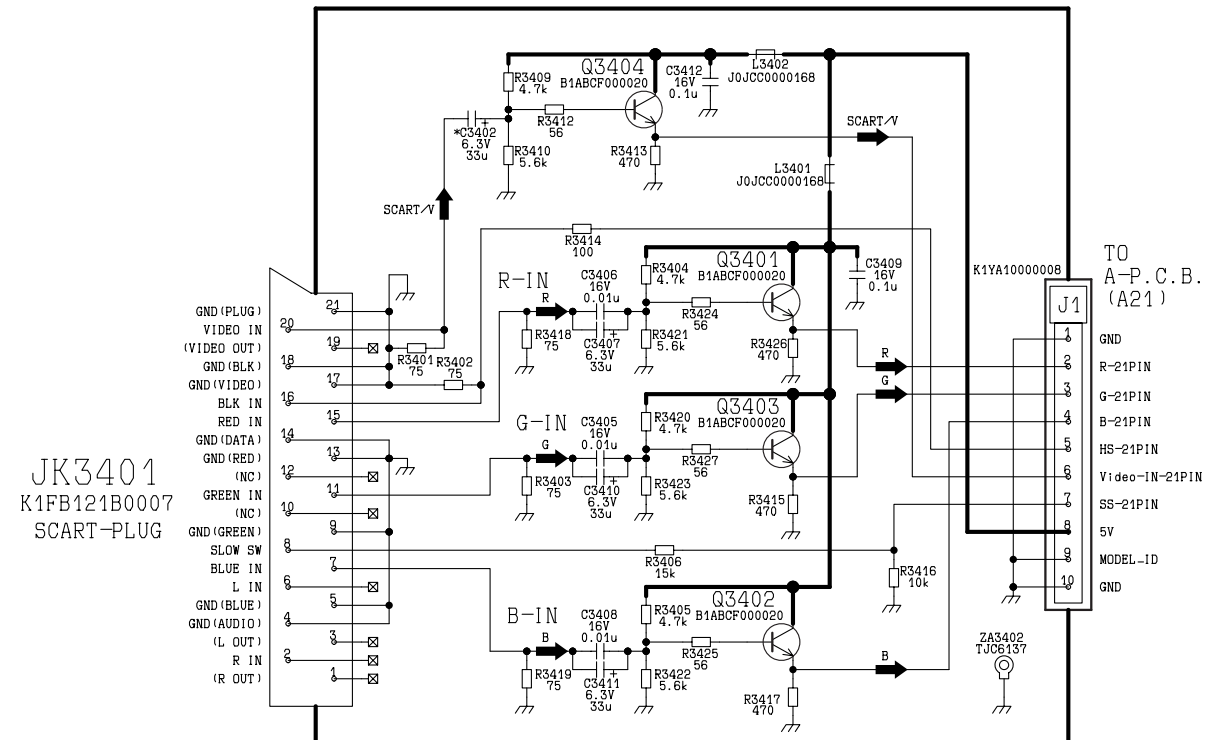
H-P.C.Board TNPA3753



J-P.C.Board TNPA3712 (PT-AE900U)



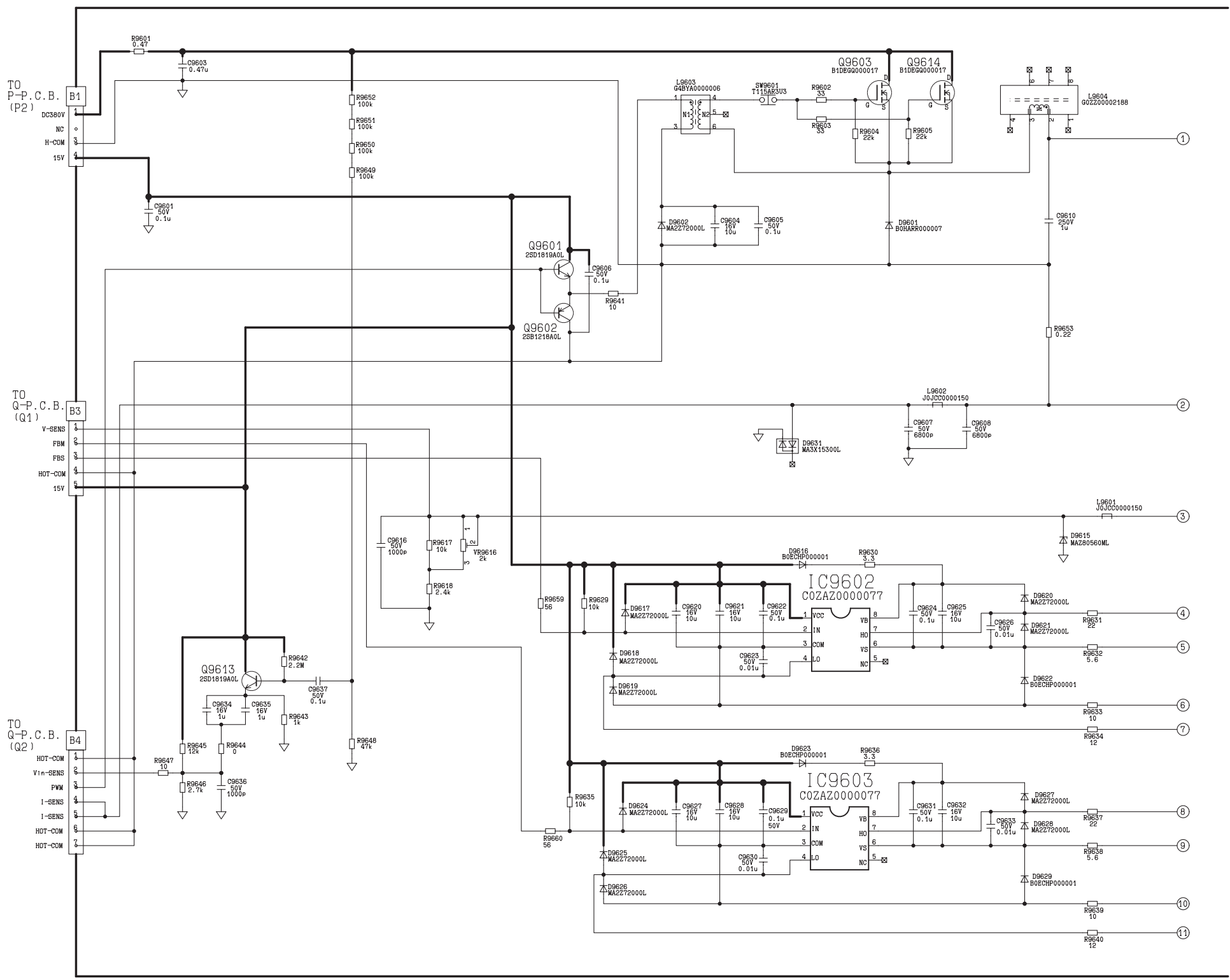
J-P.C.Board TNPA3417AB (PT-AE900E)



11.11. B-Module (1/2)

B-Module TXANP02VKB4 (1/2) Module Replacement

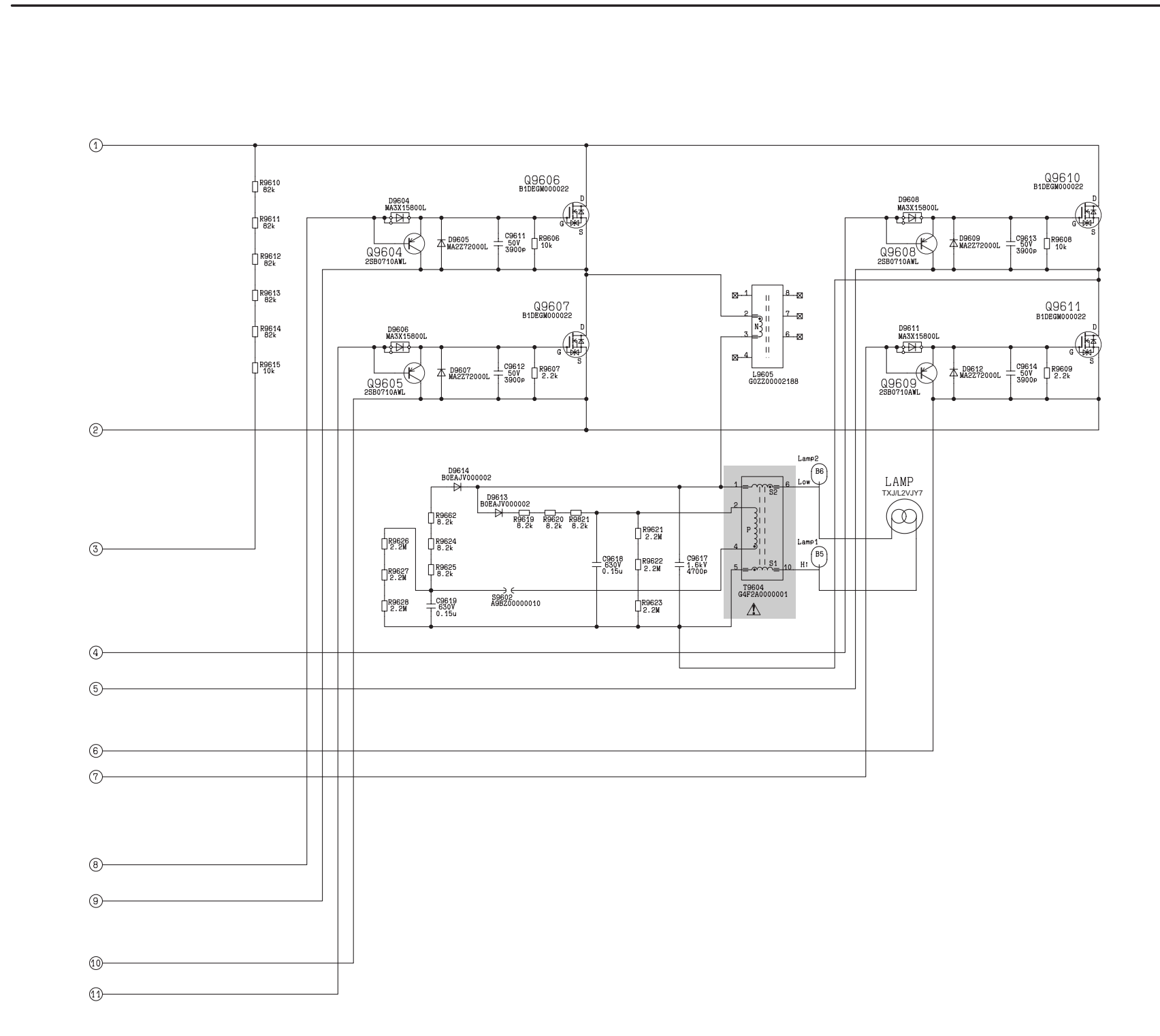
Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29, R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, SW9601, S9602, TXJ/L2VJY7



11.12. B-Module (2/2)

B-Module TXANP02VKB4 (2/2) Module Replacement

Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29,
R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, SW9601, S9602, TXJ/L2VJY7



12 Circuit Boards

12.1. A-P.CBoard

A-P.C.Board TXANP01VKB4
(Foil Side)

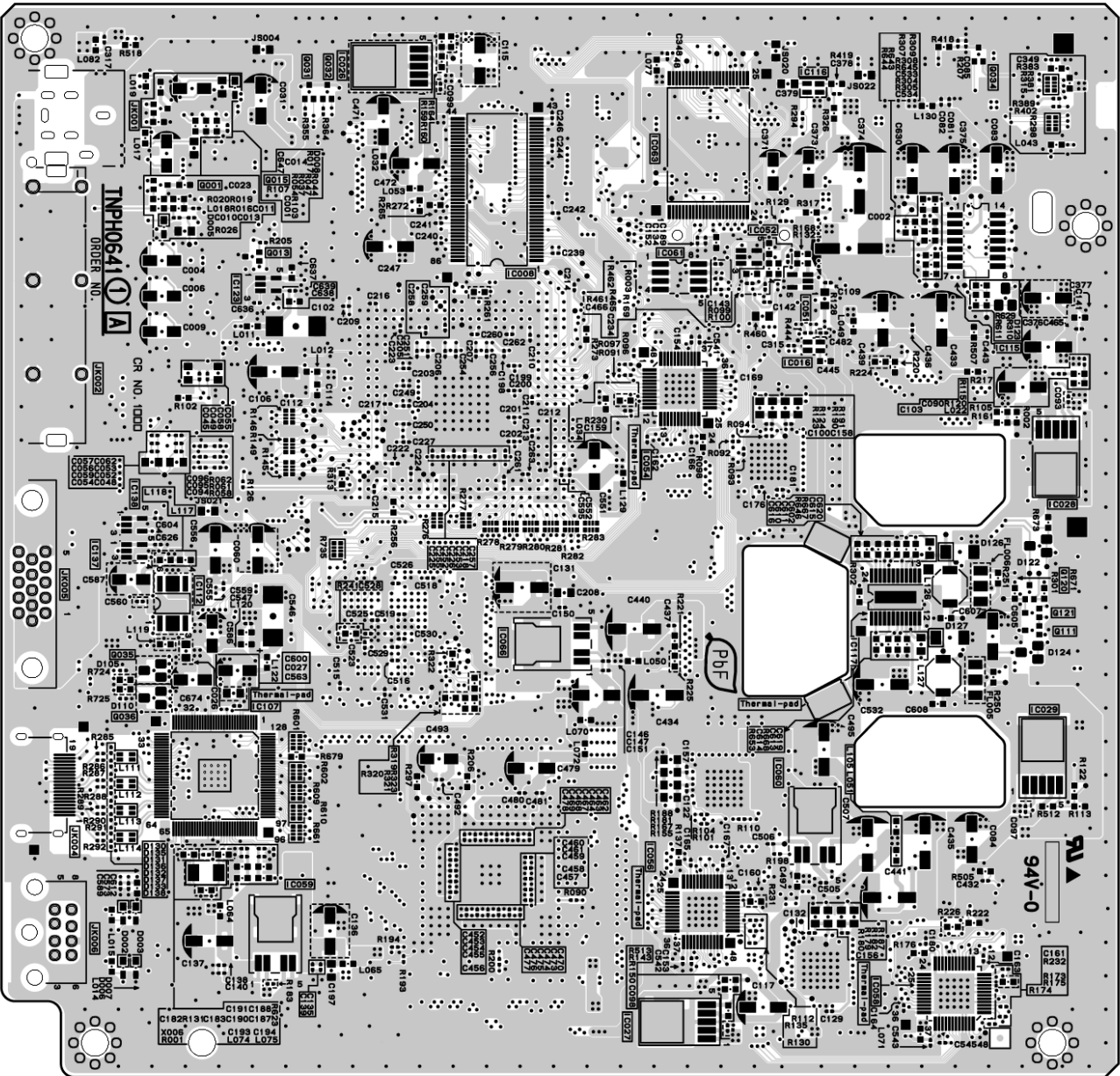
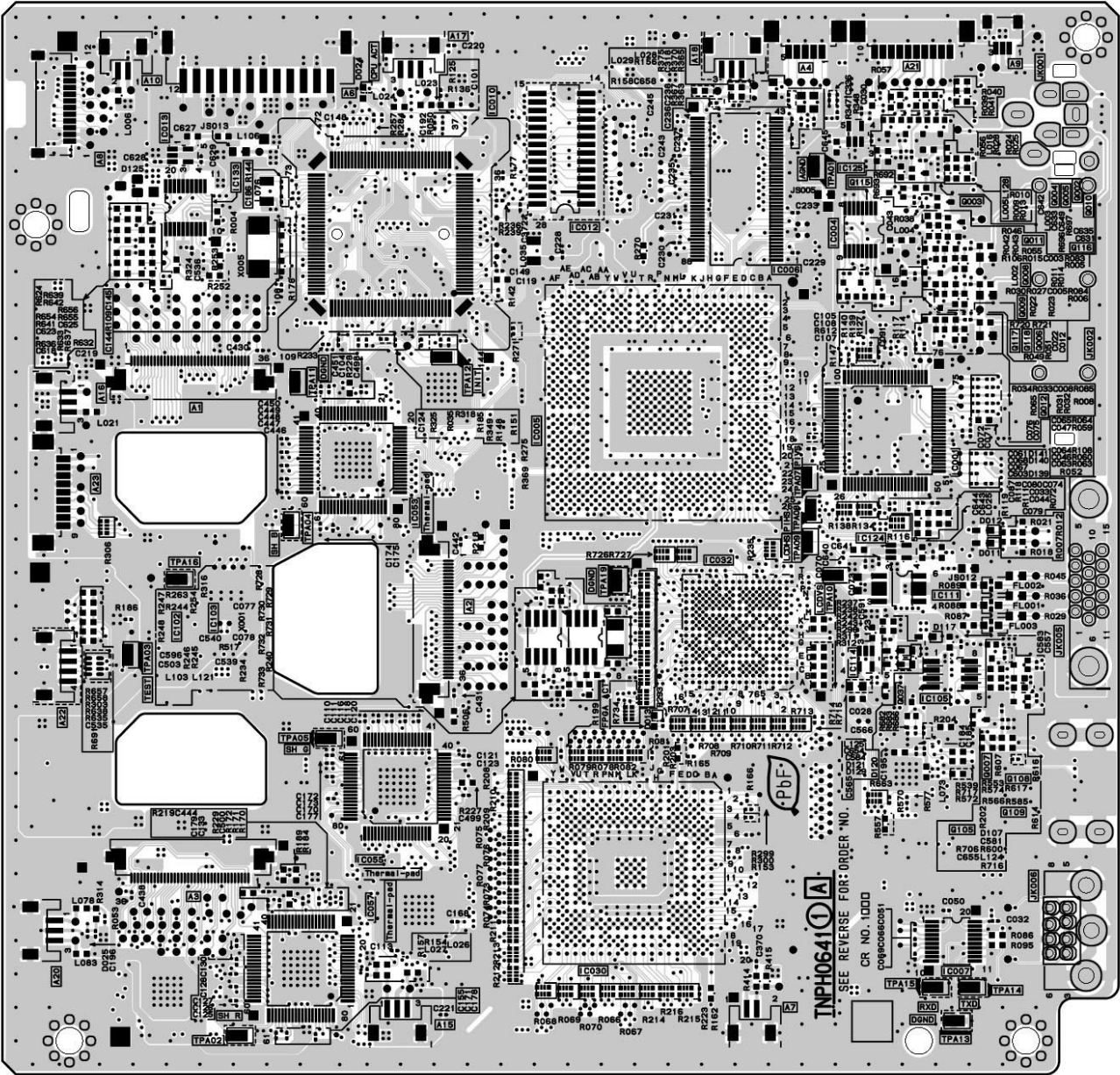
A-P.C.Board (Foil Side)									
IC		TRANSISTOR				TP			
IC1001	C-4	IC1102	B-1	Q1002	D-5	Q1105	B-4	TPA01	D-4
IC1004	D-4	IC1103	B-3	Q1003	D-4	Q1108	B-4	TPA02	A-1
IC1005	C-3	IC1105	B-4	Q1004	D-5	Q1109	B-4	TPA03	B-1
IC1006	D-3	IC1111	B-4	Q1005	D-5	Q1115	D-4	TPA04	C-2
IC1007	A-4	IC1114	B-4	Q1006	C-4	Q1116	D-5	TPA05	B-2
IC1010	D-2	IC1124	C-4	Q1007	B-4	Q1117	C-4	TPA07	C-4
IC1013	D-1	IC1125	D-4	Q1008	D-4	Q1118	C-4	TPA08	C-4
IC1030	A-3	IC1133	D-1	Q1009	C-4			TPA09	C-4
IC1032	B-3			Q1010	D-5			TPA10	B-4
IC1053	C-2			Q1011	D-4			TPA11	C-2
IC1055	B-2			Q1012	C-4			TPA12	C-2
IC1057	A-2			Q1037	B-4			TPA13	A-4

ADDRESS INFORMATION

A-P.C.Board TXANP01VKB4
(Component Side)

A-P.C.Board (Component Side)					
IC		TRANSISTOR			
IC1008	D-7	IC1061	D-8	Q1001	D-6
IC1016	C-8	IC1063	D-8	Q1013	D-6
IC1027	A-7	IC1066	B-7	Q1015	D-6
IC1028	C-9	IC1107	B-6	Q1031	D-6
IC1029	B-9	IC1115	C-9	Q1032	D-6
IC1051	C-8	IC1116	D-8	Q1034	D-8
IC1052	D-8	IC1117	B-8	Q1111	B-9
IC1054	C-7	IC1123	D-6	Q1120	B-9
IC1056	A-8	IC1137	B-5	Q1121	B-9
IC1058	A-8	IC1138	C-6		
IC1059	A-6				
IC1060	B-8				

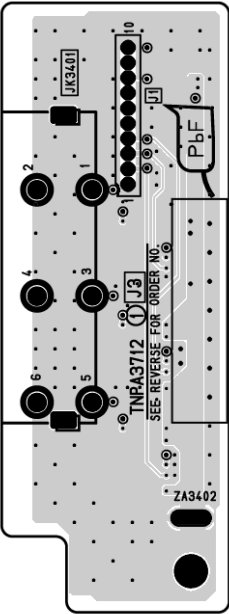
ADDRESS INFORMATION



12.2. J-P.C.Board/S-P.C.Board

F

J-P.C.Board TNPA3712
(Foil Side)
(PT-AE900U only)



E

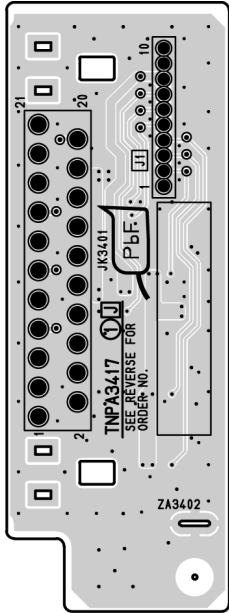
D

C

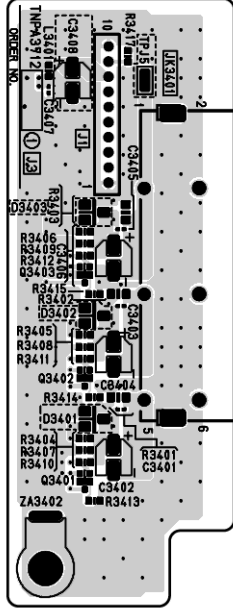
B

A

J-P.C.Board TNPA3417AB
(Foil Side)
(PT-AE900E only)



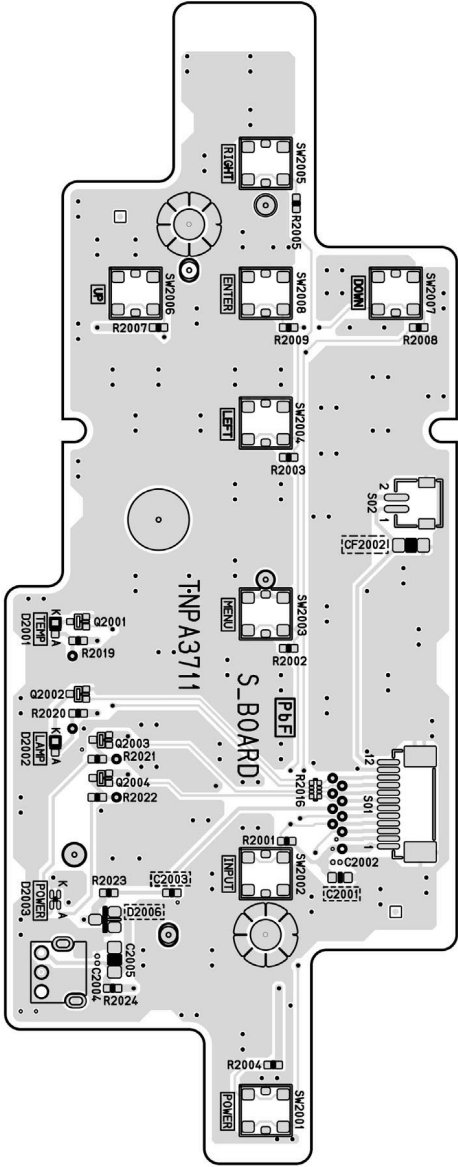
J-P.C.Board TNPA3712
(Component Side)
(PT-AE900U only)



J-P.C.Board (Component Side)	
TRANSISTOR	
Q3401	D-3
Q3402	D-3
Q3403	E-3

ADDRESS INFORMATION

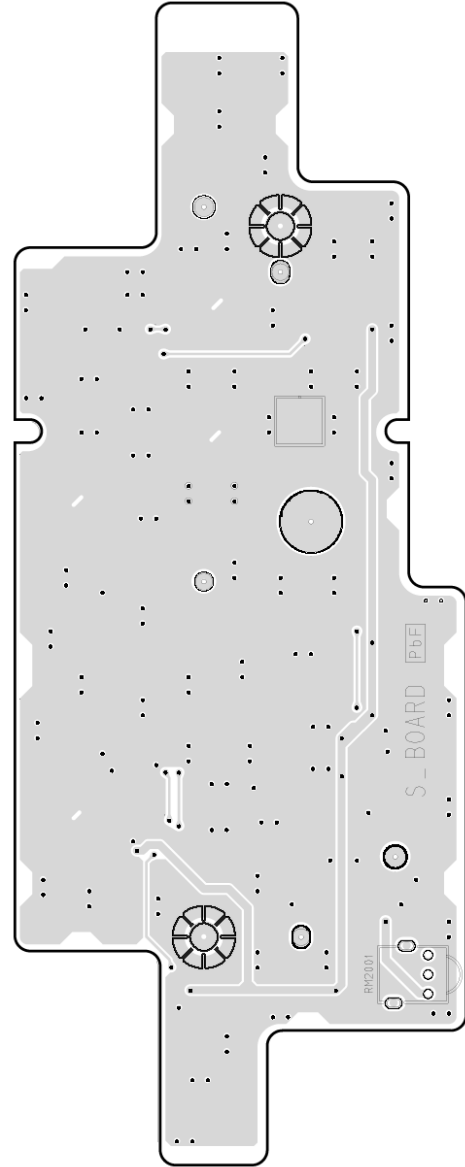
S-P.C.Board TNPA3711
(Foil Side)



S-P.C.Board (Foil Side)	
TRANSISTOR	
Q2001	C-5
Q2002	C-5
Q2003	C-5
Q2004	C-5

ADDRESS INFORMATION

S-P.C.Board TNPA3711
(Component Side)



1

2

3

4

5

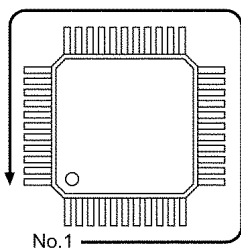
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7

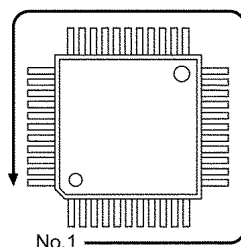
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9

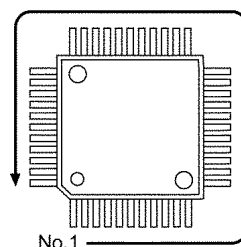
13 Terminal guide of ICs and transistors



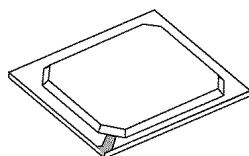
C1AB00002290 80 Pin
C1AB00002319 128 Pin
C1AB00002289 48 Pin



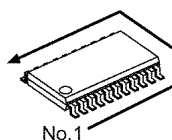
C1AB00002298 100 Pin



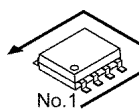
C2CBLK000002 144 Pin



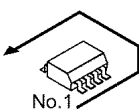
C1AB00002351
C1AB00002349



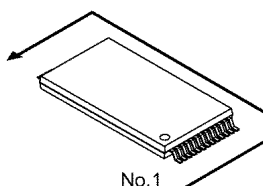
C0ZBZ0000911 20 Pin
C2CBED000007 20 Pin
C3ABPJ000071 86 Pin
C0JBAR000370 16 Pin
C0ABCA000085 14 Pin
C1BB00000818 24 Pin



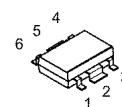
C0JBAZ002431 8 Pin
C0ZBZ0001248 8 Pin



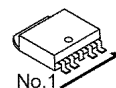
C3EBDC000067 8 Pin
C3EBKC000014 8 Pin



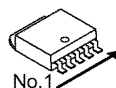
TVRN701 48 Pin



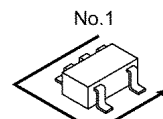
C0DBZGF00002 6 Pin



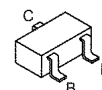
C0DBZFG00055 4 Pin
C0CBCAG00014 4 Pin
C0CBCYG00004 4 Pin



C0DBEKG00004 5 Pin



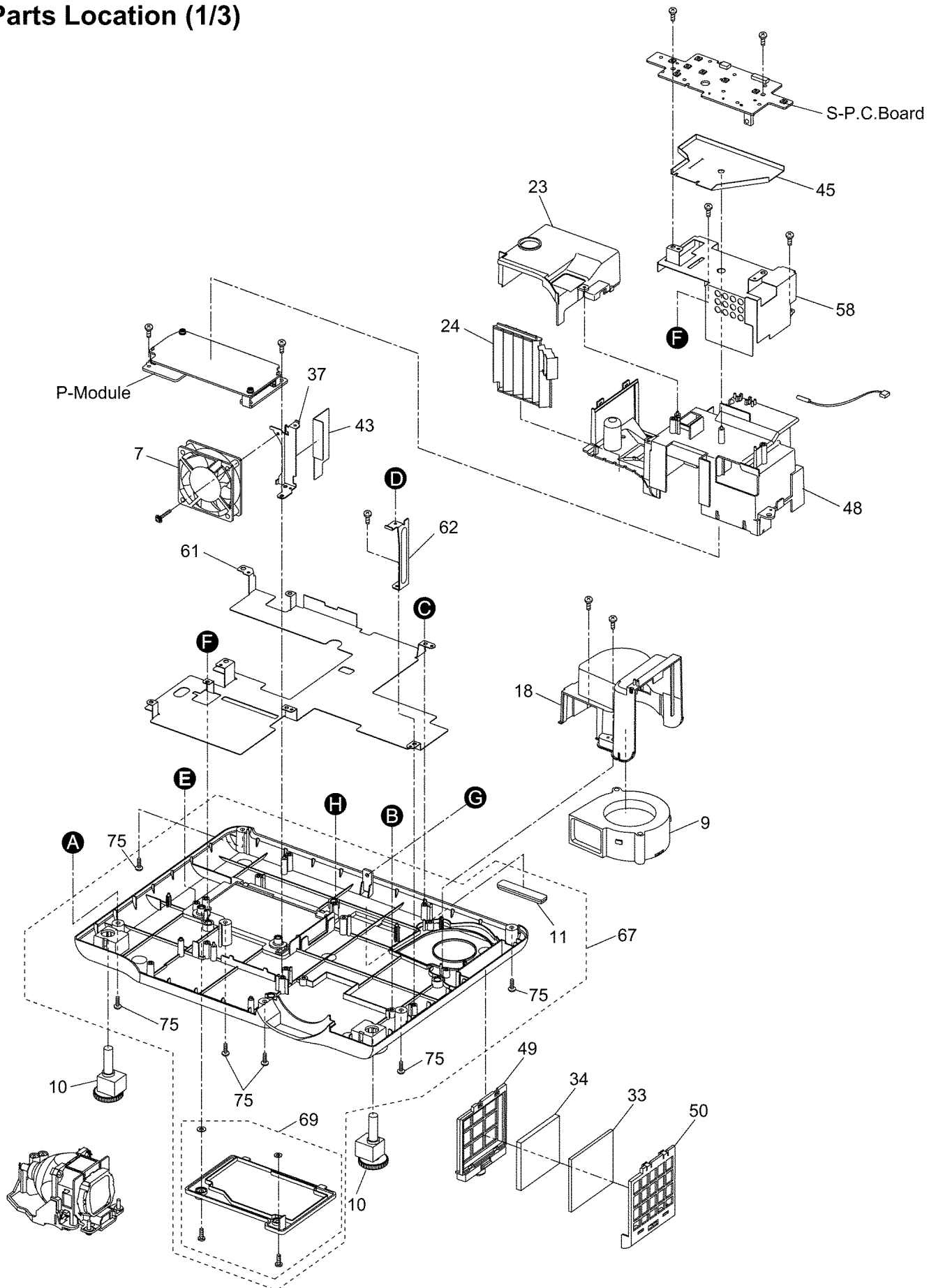
C0CBCAD00015 5 Pin
C0JBAA000359 5 Pin



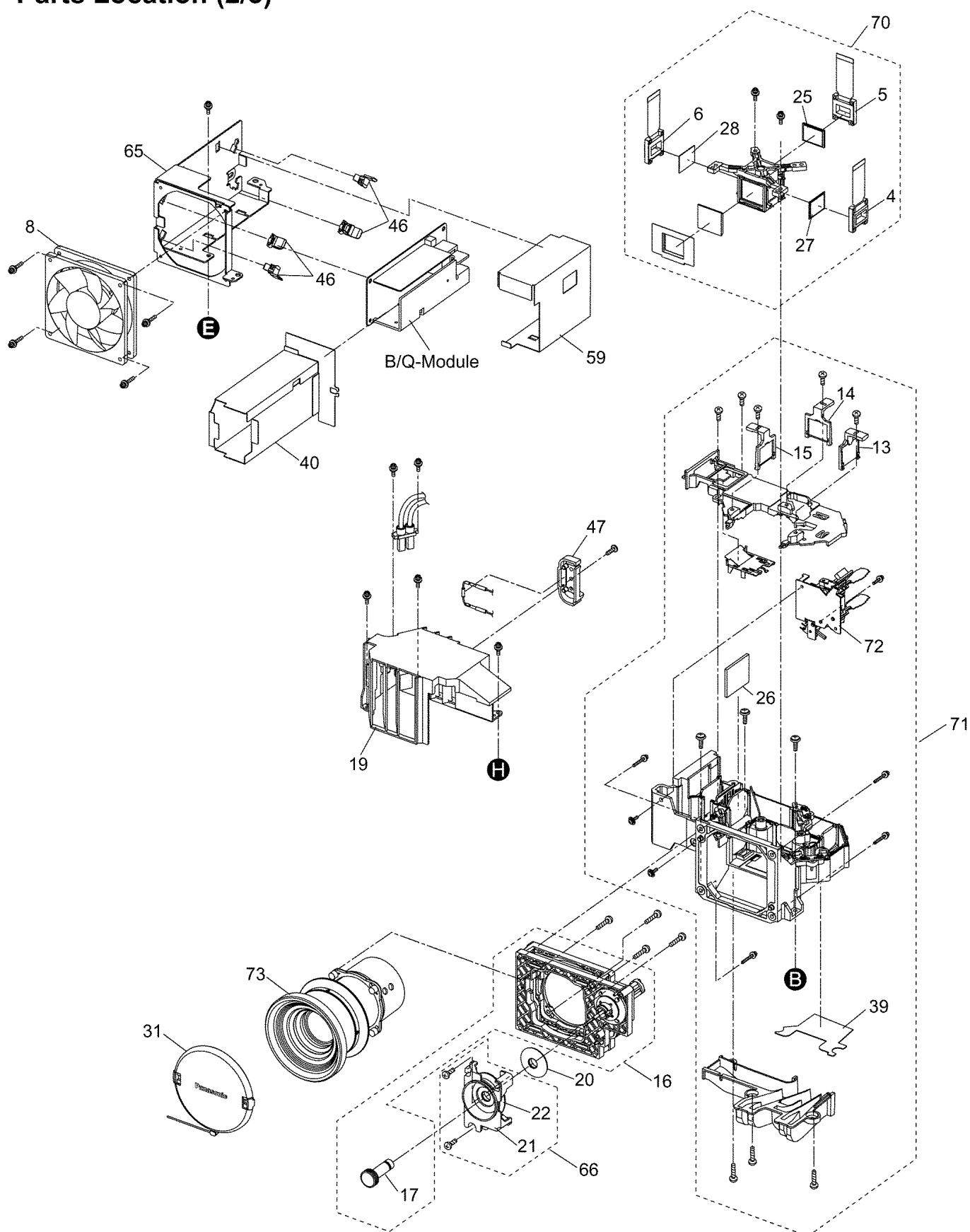
2SB1218A0L
2SD1819A0L

14 Exploded Views

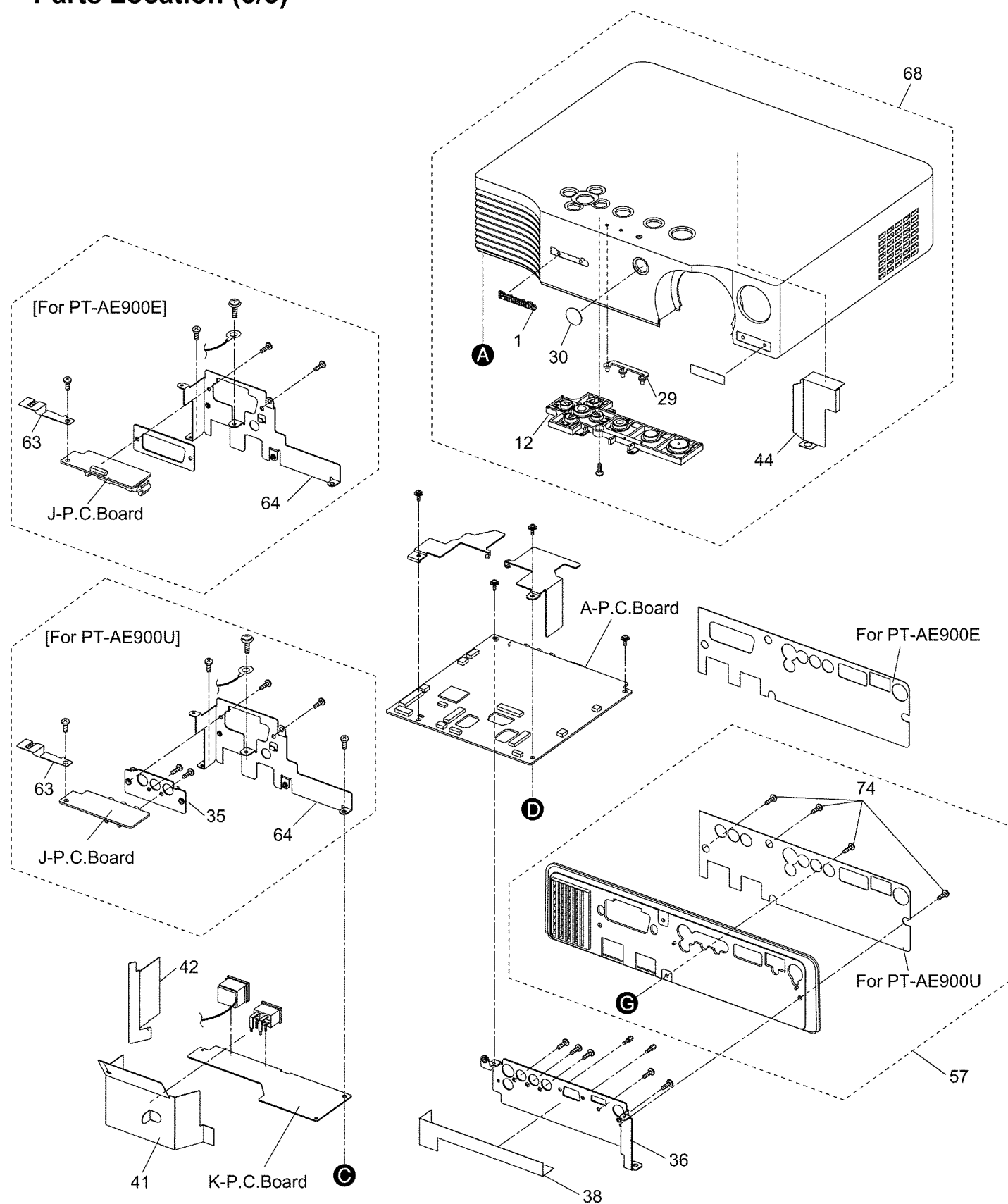
Parts Location (1/3)



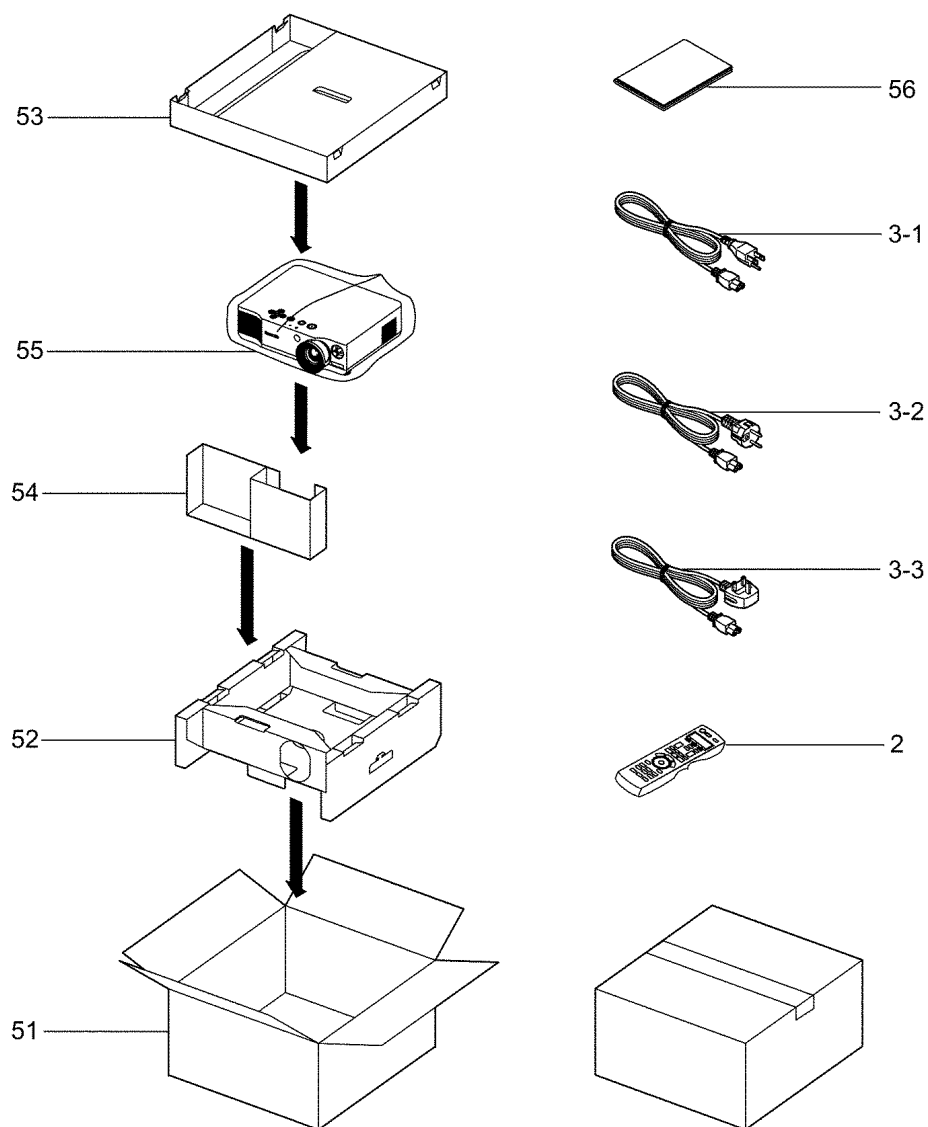
Parts Location (2/3)



Parts Location (3/3)



Packing Parts



15 Replacement Parts List

Important Safety Notice

Components identified by the International symbol \triangle have special characteristics important for safety.
When replacing any of these components, use only the manufacturer's specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

TYPE

ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : $\pm 1\%$
F : Fuse	G : $\pm 2\%$
M : Metal Oxide	J : $\pm 5\%$
Metal Film	K : $\pm 10\%$
S : Solid	M : $\pm 20\%$
W : Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V

TYPE

ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : $\pm 0.25\text{ pF}$
E : Electrolytic	D : $\pm 0.5\text{ pF}$
P : Polyester	F : $\pm 1\text{ pF}$
PP : Polypropylene	J : $\pm 5\%$
S : Polystyrol	K : $\pm 10\%$
T : Tantalum	L : $\pm 15\%$
	M : $\pm 20\%$
	P : $+100\%, -0\%$
	Z : $+80\%, -20\%$

Notes:

Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Part Name & Description	Remarks
		[MECHANICAL PARTS]	
	D4CDH5030004	TEMP SENSOR	
1	DFGB0112XB-0	PANASONIC BADGE	
2	EUR7914Z20	REMOTE CONTROLLER	
	J0KG00000052	CORE	\triangle
3-1	K2CG3FR00001	POWER CORD	\triangle PT-AE900U
3-2	K2CM3FR00002	POWER CORD (EUROPE)	\triangle PT-AE900E
3-3	K2CT3FR00003	POWER CORD (U.K.)	\triangle PT-AE900E
4	L5BDAXQ00260	LIQUID CRYSTAL DISPLAY(R)	
5	L5BDAXQ00261	LIQUID CRYSTAL DISPLAY(G)	
6	L5BDAXQ00262	LIQUID CRYSTAL DISPLAY(B)	
4	L5BDAXQ00263	LIQUID CRYSTAL DISPLAY(R)	
5	L5BDAXQ00264	LIQUID CRYSTAL DISPLAY(G)	
6	L5BDAXQ00265	LIQUID CRYSTAL DISPLAY(B)	
7	L6FAKCEH0010	POWER FAN	\triangle
8	L6FALEGH0012	VENTILATION FAN	\triangle
9	L6FCLFCH0006	INHALATION FAN	\triangle
10	TBLB0047	ADJUST LEG	
11	TBLG3042	RUBBER LEG (REAR)	
	TBMA160-1	LOGO BADGE	
	TBMG077	MODEL NAME PLATE	PT-AE900U
	TBMG078	MODEL NAME PLATE	PT-AE900E
	TBMG079	MODEL NO. LABEL	PT-AE900U
	TBMG080	MODEL NO. LABEL	PT-AE900E
12	TBXA47801	CONTROL BUTTON	
13	TEEC0038	POLARIZING PLATE/IN(R)	
14	TEEC0039	POLARIZING PLATE/IN(G)	
15	TEEC0040	POLARIZING PLATE/IN(B)	
16	TEEC0041	SHIFT MECA UNIT	
17	TEEC0042	SHIFT LEVER	
18	TEEC5173-1	VENTILATION DUCT	
19	TEEC5179	LAMP HOUSE	
20	TEEC5180	MASK MECHANISM 1	
21	TEEC5181	MASK MECHANISM 2	
22	TEEC5182	MASK MECHANISM 3	
23	TEEC5211	DUCT COVER	
	TEEC5214	SHIFT LOCK	

Ref. No.	Part No.	Part Name & Description	Remarks
24	TEEC5215	SHIELD LOUVER	
	TESD067-1	SPRING	
	TEWA456	SHIELD GASKET	
	THEC084N	SCREW(D-SUB)	
25	TKGP0029	POLARIZING PLATE/OUT(G)	
	TKGP0030	POLARIZING PLATE/OUT(G)	
26	TKGP5240	PBS	
27	TKGP5280	POLARIZING PLATE/OUT(R)	
	TKGP5281	POLARIZING PLATE/OUT(R)	
28	TKGP5284	POLARIZING PLATE/OUT(B)	
	TKGP5285	POLARIZING PLATE/OUT(B)	
29	TKKC5195	LED DIFFUSION PLATE	
30	TKKC5199	REMOTE CONTROL RECEIVER	
31	TKKL5318	LENS CAP	
33	TKNE055	FILTER	
34	TKNE056	ELECTRIFICATION FILTER	
36	TKZF5042	TERMINAL METAL	
35	TKZF5043	RCA TERMINAL METAL	PT-AE900U
37	TKZJ5059	POWER FAN INSTAL METAL	
	TMKX100	WASHER	
39	TMKX761-1	OPTICAL DUCT COVER	
40	TMKX764-1	BALLAST INSULATION SHEET	
41	TMKX766-2	SHIELD SHEET (K-PCB)	
42	TMKX771-1	SHIELD SHEET 2 (K-PCB)	
43	TMKX784	POWER FAN SHEET	
44	TMKX793-1	BOSS SHIELD SHEET	
45	TMKX794	PLATE	
38	TMKX967	SHIELD SHEET	
46	TMME241	SPACER	
	TMME244	SPACER	
47	TMXC017	TEMP FUSE METAL	
48	TMXE044	POWER BOX	
49	TMZX5047	FILTER COVER 1	
50	TMZX5048	FILTER COVER 2	
51	TPCB86302	CARTON	PT-AE900U
	TPCB86303	CARTON	PT-AE900E
52	TPDF1317-1	CUSHION	
53	TPDF1318	ACCESSORY CARTON	
54	TPDF1349	CUSHION	
55	TPEH124-1	SET COVER	
	TQB817002-1	SAFETY SHEET	PT-AE900U

Ref. No.	Part No.	Part Name & Description	Remarks
56	TQBJ0182	INSTRUCTION BOOK	△ PT-AE900U
	TQBJ0183	INSTRUCTION BOOK	△ PT-AE900E
	TQBJ7002-1	DIRECTORY SHEET	PT-AE900U
	TQD1712010	SHEET	
	TQDJ18012-1	GUARANTEE CARD (CANADA)	PT-AE900U
	TQDJ18026	GUARANTEE CARD (USA)	PT-AE900U
57	TSXL484	FLEX CABLE (A8-S1)	
	TPPA0428	TERMINAL COVER	PT-AE900U
	TPPA0429	TERMINAL COVER	PT-AE900E
	TUCB5033	ALUMINUM SHEET 1	
	TUCB5034-1	ALUMINUM SHEET 2	
	TUCB5035	ALUMINUM SHEET 3	
58	TUCB5036	ALUMINUM SHEET 4 (BOTTOM C	
	TUCC6005-1	POWER SHIELD METAL	
	TUCC6019	BALLAST SHIELD METAL	
	TUCJ5506	BALLAST HEATSINK 1	
	TUCX5180	BASE METAL	
	TUCX5181	GROUND METAL 1	
61	TUCX5201	EARTH METAL (K-PCB)	
	TUWC053-1	METAL (K-PCB)	
	TUXE237	BALLAST INSTAL METAL	
	TXFEC98VKB4	ANALYSIS BLOCK	
	TXFEC99VKB4A	OPTICAL BLOCK A	
	TXFEC99VKB4B	OPTICAL BLOCK B	
66	TXFEE01VJY7	MASK MECHANISM ASSY	
	TXFKF01QAZZ	BOTTOM COVER	PT-AE900U
	TXFKF01QBAZ	BOTTOM COVER	PT-AE900E
	TXFKF02QAZZ	UPPER COVER	PT-AE900U
	TXFKF02QBAZ	UPPER COVER	PT-AE900E
	TXFKL01VKB4	LAMP COVER ASSY	
67	TXFKN01VJY7	FILTER	
	TXJ/A10VKB4	INTERLOCK SW CABLE	△
	TXJ/B1VJW5A	LEAD WIRE (BALLAST UNIT)	△
	TXJ/E2VJY7B	EARTH WIRE	△
	TXJ/H1VKB4	LEAD WIRE (H1-A23)	△
	TXJ/J1VKB4	LEAD WIRE	△
68	TXJ/K2VKB4	LEAD WIRE (K2-A9)	△
	TXJ/L2VJY7	LAMP CABLE	
	TXJ/P1VKB4	LEAD WIRE (K1-P1)	△
	TXJ/P3VKB4	LEAD WIRE (P2-A6)	△
	TXJ/Q3VKB4	LEAD WIRE (Q3-A4)	△
	TXZEN01VKB4	IRIS UNIT	
72	TXZPL01VKB4	LENS	
	XSB3+10FN	SCREW	
	XSB3+8FN	SCREW	
	XSN3+8FJK	SCREW	
	XTB3+12CFN	SCREW	
	XTBT969FJK	SCREW	
74	XTN3+6GFJ	SCREW	
	XTW3+8PFJ	SCREW	
	XYN2+F6FJ	SCREW	
	XYN2+J4FJ	SCREW	
	XYN3+F20FJ	SCREW	
	XYN3+F8FJ	SCREW	
75	XYN3+J10FJ	SCREW	
	XYN3+J12FJ	SCREW	
	XYN3+J8FJ	SCREW	
	XYN4+E8FJ	SCREW	
	XZBT6532	POLY BAG	PT-AE900U
[INTEGRATED CIRCUIT]			
IC001	MIP2F20MSSCF	I.C	
IC002	C0DBEYY00010	I.C	
IC1001	C1AB00002298	I.C	
IC1004	C0JBAR000370	I.C	
IC1005	C1AB00002349	I.C	
IC1006	C3ABPJ000071	I.C	
IC1007	C0ZBZ0000911	I.C	
IC1008	C3ABPJ000071	I.C	
IC1010	TVRN700	I.C	

Ref. No.	Part No.	Part Name & Description	Remarks
IC1013	C0CBCBD00008	I.C	
IC1016	C0EBE0000336	I.C	
IC1027	C0DBEKG00004	I.C	
IC1028	C0DBEKG00004	I.C	
IC1029	C0DBEKG00004	I.C	
IC1030	C1AB00002351	I.C	
IC1032	C1ZBZ0002561	I.C	
IC1051	C0DBEMC00020	I.C	
IC1052	C0DBEMC00020	I.C	
IC1053	C1AB00002290	I.C	
IC1054	C1AB00002289	I.C	
IC1055	C1AB00002290	I.C	
IC1056	C1AB00002289	I.C	
IC1057	C1AB00002290	I.C	
IC1058	C1AB00002289	I.C	
IC1059	C0DBZFG00055	I.C	
IC1060	C0CBCYG00004	I.C	
IC1061	C3EBKC000014	I.C	
IC1063	TVRN699	I.C	
IC1066	C0CBCAG00014	I.C	
IC1102	C0JBAZ002431	I.C	
IC1103	C0ZBZ0001248	I.C	
IC1105	C3EBDC000067	I.C	
IC1107	C1AB00002319	I.C	
IC1111	C0DBZGF00002	I.C	
IC1114	C0CBCAD00015	I.C	
IC1115	C0ABCA000085	I.C	
IC1117	C1BB00000818	I.C	
IC1123	C0CBCAD00015	I.C	
IC1124	C0CBCAD00015	I.C	
IC1125	C0CBCDD00004	I.C	
IC1133	TVRN701	I.C	
IC1137	C0JBAA000359	I.C	
IC1138	C0JBAA000359	I.C	
IC9602	C0ZBZ0000943	I.C	
IC9603	C0ZBZ0000943	I.C	
[TRANSISTORS]			
Q001	2SD1819A-R	TRANSISTOR	
Q002	2SD1819A-R	TRANSISTOR	
Q1001	B1ABCF000020	TRANSISTOR	
Q1002	B1ADCF000063	TRANSISTOR	
Q1003	B1ADCF000063	TRANSISTOR	
Q1004	B1ADCF000063	TRANSISTOR	
Q1005	B1ADCF000063	TRANSISTOR	
Q1006	B1ABCF000020	TRANSISTOR	
Q1007	B1GBCFJJ0007	TRANSISTOR	
Q1008	B1ABCF000020	TRANSISTOR	
Q1009	B1ABCF000020	TRANSISTOR	
Q1010	B1ADCF000063	TRANSISTOR	
Q1011	B1ABCF000020	TRANSISTOR	
Q1012	B1ABCF000020	TRANSISTOR	
Q1013	B1ADCF000063	TRANSISTOR	
Q1015	B1ABCF000020	TRANSISTOR	
Q1031	B1ABCF000020	TRANSISTOR	
Q1032	B1ABCF000020	TRANSISTOR	
Q1034	B1GDCFJJ0008	TRANSISTOR	
Q1037	B1CBGD000001	TRANSISTOR	
Q1105	B1GBCFJJ0007	TRANSISTOR	
Q1108	B1CBGD000001	TRANSISTOR	
Q1109	B1CBGD000001	TRANSISTOR	
Q1111	B1ABCF000020	TRANSISTOR	
Q1115	B1ADCF000063	TRANSISTOR	
Q1116	B1ABCF000020	TRANSISTOR	
Q1117	B1GBCFJJ0007	TRANSISTOR	
Q1118	B1GBCFJJ0007	TRANSISTOR	
Q1120	B1ADCF000063	TRANSISTOR	
Q1121	B1ABCF000020	TRANSISTOR	
Q2001	B1GBCFJJ0007	TRANSISTOR	
Q2002	B1GBCFJJ0007	TRANSISTOR	
Q2003	B1GDCFJJ0008	TRANSISTOR	
Q2004	B1GDCFJJ0008	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q3401	B1ABCF000020	TRANSISTOR	PT-AE900U
	2SD1819A0L	TRANSISTOR	PT-AE900E
Q3402	B1ABCF000020	TRANSISTOR	PT-AE900U
	2SD1819A0L	TRANSISTOR	PT-AE900E
Q3403	B1ABCF000020	TRANSISTOR	PT-AE900U
	2SD1819A0L	TRANSISTOR	PT-AE900E
Q3404	2SD1819A0L	TRANSISTOR	PT-AE900E
Q9603	B1DEGQ000037	TRANSISTOR	
Q9604	2SB0710AWL	TRANSISTOR	
Q9605	2SB0710AWL	TRANSISTOR	
Q9606	B1DEGM000022	TRANSISTOR	
Q9607	B1DEGM000022	TRANSISTOR	
Q9608	2SB0710AWL	TRANSISTOR	
Q9609	2SB0710AWL	TRANSISTOR	
Q9610	B1DEGM000022	TRANSISTOR	
Q9611	B1DEGM000022	TRANSISTOR	
Q9614	B1DEGQ000037	TRANSISTOR	
[DIODES]			
D001	B0EBKR000039	DIODE	△
D002	B0HCGV000002	DIODE	
D003	B0HCKP000004	DIODE	
D004	B0JCMG000012	DIODE	
D005	MA2J11100L	DIODE	
D1002	MAZ81500ML	DIODE	
D1003	MAZ81500ML	DIODE	
D1005	MAZ80560ML	DIODE	
D1006	MAZ81500ML	DIODE	
D1007	MAZ81500ML	DIODE	
D1008	MAZ80560ML	DIODE	
D1011	MAZ80560ML	DIODE	
D1012	MAZ80560ML	DIODE	
D1013	B3AAB0000038	DIODE	
D1024	B3AAB0000038	DIODE	
D1105	EZJZ0V171AA	VARISTOR	
D1107	EZJZ0V171AA	VARISTOR	
D1110	EZJZ0V171AA	VARISTOR	
D1117	MAZ80560ML	DIODE	
D1120	B0JCAE000001	DIODE	
D1121	B0JCGD000002	DIODE	
D1122	MA3X152E0L	DIODE	
D1123	MA3X152E0L	DIODE	
D1124	MA153TX	DIODE	
D1125	MA704ATX	DIODE	
D1126	B0JCPD000026	DIODE	
D1127	B0JCPD000026	DIODE	
D1130	EZJZ0V80008B	VARISTOR	
D1131	EZJZ0V80008B	VARISTOR	
D1132	EZJZ0V80008B	VARISTOR	
D1133	EZJZ0V80008B	VARISTOR	
D1135	EZJZ0V80008B	VARISTOR	
D1136	EZJZ0V80008B	VARISTOR	
D1137	EZJZ0V80008B	VARISTOR	
D1138	EZJZ0V80008B	VARISTOR	
D1139	EZJZ0V171AA	VARISTOR	
D1140	EZJZ0V171AA	VARISTOR	
D1141	EZJZ0V171AA	VARISTOR	
D2001	B3AAB0000038	DIODE	
D2002	B3AAB0000038	DIODE	
D2003	B3AGB0000044	DIODE	
D9601	B0HASR000006	DIODE	
D9604	MA158TX	DIODE	
D9605	MA2Z72000L	DIODE	
D9606	MA158TX	DIODE	
D9607	MA2Z72000L	DIODE	
D9608	MA158TX	DIODE	
D9609	MA2Z72000L	DIODE	
D9611	MA158TX	DIODE	
D9612	MA2Z72000L	DIODE	
D9616	B0ECHP000003	DIODE	
D9617	MA2Z72000L	DIODE	
D9618	MA2Z72000L	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D9619	MA2Z72000L	DIODE	
D9620	MA2Z72000L	DIODE	
D9621	MA2Z72000L	DIODE	
D9622	B0ECHP000003	DIODE	
D9623	B0ECHP000003	DIODE	
D9624	MA2Z72000L	DIODE	
D9625	MA2Z72000L	DIODE	
D9626	MA2Z72000L	DIODE	
D9627	MA2Z72000L	DIODE	
D9628	MA2Z72000L	DIODE	
D9629	B0ECHP000003	DIODE	
[COILS]			
L001	G0B592H00001	FILTER	△
L002	G0B592H00001	FILTER	△
L003	J0JHC0000023	COIL	
L004	G0C680KA0134	COIL	
L005	G0B301J00001	FILTER	△
L1002	J0JCC0000168	FILTER	
L1003	J0JCC0000168	FILTER	
L1004	J0JCC0000168	FILTER	
L1005	J0JCC0000168	FILTER	
L1006	J0JCC0000168	FILTER	
L1011	J0JJC0000022	EMI FILTER	
L1012	J0JJC0000022	EMI FILTER	
L1014	J0JCC0000168	FILTER	
L1015	J0JCC0000168	FILTER	
L1016	J0JCC0000168	FILTER	
L1017	J0JCC0000168	FILTER	
L1018	J0JCC0000168	FILTER	
L1019	J0JCC0000168	FILTER	
L1021	J0JJC0000022	EMI FILTER	
L1022	J0JCC0000168	FILTER	
L1023	J0JCC0000168	FILTER	
L1024	J0JJC0000022	EMI FILTER	
L1025	J0JCC0000168	FILTER	
L1026	J0JJC0000022	EMI FILTER	
L1027	J0JCC0000168	FILTER	
L1032	J0JJC0000022	EMI FILTER	
L1034	J0JJC0000022	EMI FILTER	
L1035	ELJFA470JFB	COIL	
L1043	J0JCC0000168	FILTER	
L1049	J0JJC0000022	EMI FILTER	
L1050	J0JJC0000022	EMI FILTER	
L1051	J0JJC0000022	EMI FILTER	
L1053	J0JJC0000022	EMI FILTER	
L1064	J0JJC0000022	EMI FILTER	
L1065	J0JJC0000022	EMI FILTER	
L1070	J0JJC0000022	EMI FILTER	
L1071	J0JJC0000022	EMI FILTER	
L1072	J0JJC0000022	EMI FILTER	
L1073	J0JJC0000022	EMI FILTER	
L1074	J0JJC0000022	EMI FILTER	
L1075	J0JJC0000022	EMI FILTER	
L1076	ELJFA470JFB	COIL	
L1077	J0JJC0000022	EMI FILTER	
L1078	J0JCC0000168	FILTER	
L1082	J0JCC0000168	FILTER	
L1103	J0JCC0000168	FILTER	
L1105	J0JJC0000022	EMI FILTER	
L1106	J0JJC0000022	EMI FILTER	
L1111	J0MAB0000176	COIL	
L1112	J0MAB0000176	COIL	
L1113	J0MAB0000176	COIL	
L1114	J0MAB0000176	COIL	
L1117	J0JJC0000022	EMI FILTER	
L1120	J0JJC0000022	EMI FILTER	
L1121	J0JCC0000168	FILTER	
L1122	J0JJC0000022	EMI FILTER	
L1123	J0JCC0000168	FILTER	
L1124	J0JCC0000168	FILTER	
L1125	J0JCC0000168	FILTER	

Ref. No.	Part No.	Part Name & Description	Remarks
L1126	GLC330MA0077	COIL	
L1127	GLC330MA0077	COIL	
L1128	J0JCC0000168	FILTER	
L1129	J0JJC0000022	EMI FILTER	
L1130	J0JJC0000022	EMI FILTER	
L3401	J0JJC0000022	EMI FILTER	
L3402	J0JJC0000022	EMI FILTER	PT-AE900E
FL1001	J0HABC000011	FILTER	
FL1002	J0HABC000011	FILTER	
FL1003	J0HABC000011	FILTER	
[RESISTORS]			
R001	ERJ12YJ474	RESISTOR	
R002	ERJ3GEYJ224	RESISTOR	
R003	ERJ3GEYJ153	RESISTOR	
R004	ERJ6GEYJ220	RESISTOR	
R005	ERJ3GEYJ820	RESISTOR	
R006	ERJ3GEYJ470	RESISTOR	
R007	ERJ6ENF2552	RESISTOR	
R008	ERJ6ENF1502	RESISTOR	
R009	ERJ3GEYJ562	RESISTOR	
R012	ERJ3GEYJ563	RESISTOR	
R013	ERJ3GEYJ103	RESISTOR	
R014	ERJ3GEYJ223	RESISTOR	
R1002	ERJ3EKF1003V	M 100KOHM, 1/16W	
R1003	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1004	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1005	ERJ6ENF75R0V	M 75 OHM, 1/10W	
R1006	ERJ6ENF75R0V	M 75 OHM, 1/10W	
R1007	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1008	ERJ6ENF75R0V	M 75 OHM, 1/10W	
R1009	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1010	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	
R1011	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1012	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1013	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1014	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	
R1015	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1016	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1017	ERJ6GEYJ750V	M 75 OHM, J, 1/10W	
R1018	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	
R1019	ERJ3GEYJ104V	M 100KOHM, J, 1/16W	
R1020	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1021	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	
R1022	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1023	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	
R1024	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1025	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1026	ERJ6GEYJ750V	M 75 OHM, J, 1/10W	
R1027	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1028	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1029	ERJ6ENF75R0V	M 75 OHM, 1/10W	
R1030	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1031	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1032	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	
R1033	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1034	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1035	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1036	ERJ6ENF75R0V	M 75 OHM, 1/10W	
R1037	ERJ3GEYJ221V	RESISTOR	
R1038	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1039	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1040	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	
R1041	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1042	ERJ3GEYJ103V	M 10KOHM, J, 1/16W	
R1043	ERJ3GEYJ103V	M 10KOHM, J, 1/16W	
R1044	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1045	ERJ6ENF75R0V	M 75 OHM, 1/10W	
R1046	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1047	ERJ3GEYJ221V	RESISTOR	
R1049	ERJ2GEJ682X	RESISTOR	
R1050	ERJ2GEJ103X	M 10K OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1051	ERJ2GEJ332X	RESISTOR	
R1053	ERJ2GEJ473X	M 47K OHM, 0.063W	
R1054	ERJ3GEYJ221V	RESISTOR	
R1055	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1056	ERJ3GEYJ180V	M 18 OHM, J, 1/16W	
R1057	ERJ3GEYJ180V	M 18 OHM, J, 1/16W	
R1058	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1059	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1060	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1061	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1062	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1063	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1064	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1065	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1066	EXB28V560J	RESISTOR ARRAY	
R1067	EXB28V560J	RESISTOR ARRAY	
R1068	EXB28V560J	RESISTOR ARRAY	
R1069	EXB28V560J	RESISTOR ARRAY	
R1070	EXB28V560J	RESISTOR ARRAY	
R1071	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1072	ERJ3EKF1600	RESISTOR	
R1073	EXB28V560J	RESISTOR ARRAY	
R1074	EXB28V560J	RESISTOR ARRAY	
R1075	EXB28V560J	RESISTOR ARRAY	
R1076	EXB28V560J	RESISTOR ARRAY	
R1077	EXB28V560J	RESISTOR ARRAY	
R1078	EXB28V560J	RESISTOR ARRAY	
R1079	EXB28V560J	RESISTOR ARRAY	
R1080	EXB28V560J	RESISTOR ARRAY	
R1081	EXB28V560J	RESISTOR ARRAY	
R1082	EXB28V560J	RESISTOR ARRAY	
R1083	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1084	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1085	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1086	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	
R1087	ERJ3GEYJ180V	M 18 OHM, J, 1/16W	
R1088	ERJ3GEYJ180V	M 18 OHM, J, 1/16W	
R1089	ERJ3GEYJ180V	M 18 OHM, J, 1/16W	
R1090	ERJ2GEJ560	M 560 OHM, 0.063W	
R1091	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1092	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1093	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1094	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1095	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	
R1096	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1097	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1098	ERJ3GEYJ104V	M 100KOHM, J, 1/16W	
R1099	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1100	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1101	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1102	ERJ3EKF1371	M1.37KOHM, 1/16W	
R1103	ERJ6GEYJ750V	M 75 OHM, J, 1/10W	
R1104	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1105	ERJ3EKF1002V	M 10KOHM, 1/16W	
R1106	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1107	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1108	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1109	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1110	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1111	ERJ3EKF1691	RESISTOR	
R1112	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1113	ERJ3EKF1002V	M 10KOHM, 1/16W	
R1114	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1115	ERJ2GEJ562X	M5.6K OHM, 0.063W	
R1116	EXB28V220J	RESISTOR ARRAY	
R1117	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1118	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1119	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1120	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1121	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1122	ERJ3EKF3902V	M 39K OHM, 1/16W	
R1123	ERJ6ENF1801	RESISTOR	
R1124	ERJ6ENF1801	RESISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
R1125	ERJ2GEJ562X	M5.6K OHM, 0.063W	
R1126	ERJ2GEJ560	M 560 OHM, 0.063W	
R1127	EXB28V220J	RESISTOR ARRAY	
R1128	ERJ6GEYJ122V	M 1.2KOHM, J, 1/10W	
R1129	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1130	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1132	ERJ3EKF2742	RESISTOR	
R1133	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1134	EXB28V220J	RESISTOR ARRAY	
R1135	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1136	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1137	ERJ3GEYJ104V	M 100KOHM, J, 1/16W	
R1138	EXB28V220J	RESISTOR ARRAY	
R1140	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1141	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1142	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1143	ERJ3EKF1002V	M 10KOHM, 1/16W	
R1144	ERJ2GEJ221X	M 220 OHM, 0.063W	
R1145	EXB28V220J	RESISTOR ARRAY	
R1146	EXB28V220J	RESISTOR ARRAY	
R1147	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1148	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1149	EXB28V220J	RESISTOR ARRAY	
R1150	ERJ3EKF1003V	M 100KOHM, 1/16W	
R1151	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1152	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1153	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1154	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R1155	ERJ6ENF1801	RESISTOR	
R1157	ERJ2GEJ562X	M5.6K OHM, 0.063W	
R1161	ERJ3EKF3902V	M 39K OHM, 1/16W	
R1162	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1163	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1165	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1166	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1167	ERJ6ENF1801	RESISTOR	
R1168	ERJ3EKF1002V	M 10KOHM, 1/16W	
R1169	ERJ3EKF3902V	M 39K OHM, 1/16W	
R1170	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1171	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1172	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1173	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1174	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1175	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1176	ERJ3GEYJ104V	M 100KOHM, J, 1/16W	
R1177	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1178	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1179	ERJ6ENF1801	RESISTOR	
R1180	ERJ6ENF1801	RESISTOR	
R1181	ERJ6GEYJ471V	RESISTOR	
R1182	ERJ6GEYJ471V	RESISTOR	
R1183	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1184	ERJ3EKF2201	M 2.2KOHM, 1/16W	
R1185	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1186	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1187	ERJ6ENF1001V	M 1KOHM, 1/10W	
R1188	ERJ6ENF1001V	M 1KOHM, 1/10W	
R1189	ERJ3EKF1072	RESISTOR	
R1190	ERJ6GEYJ471V	RESISTOR	
R1191	ERJ6ENF1001V	M 1KOHM, 1/10W	
R1192	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1193	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1194	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1195	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1196	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1197	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1198	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1199	ERJ2GEJ560	M 560 OHM, 0.063W	
R1200	ERJ2GEJ560	M 560 OHM, 0.063W	
R1201	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1202	ERJ2GEJ223X	RESISTOR	
R1204	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1205	ERJ2GEJ221X	M 220 OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1206	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	
R1207	ERJ2GEJ473X	M 47K OHM, 0.063W	
R1208	EXB28V560J	RESISTOR ARRAY	
R1209	EXB28V560J	RESISTOR ARRAY	
R1210	EXB28V560J	RESISTOR ARRAY	
R1211	EXB28V560J	RESISTOR ARRAY	
R1212	EXB28V560J	RESISTOR ARRAY	
R1213	EXB28V560J	RESISTOR ARRAY	
R1214	EXB28V560J	RESISTOR ARRAY	
R1215	EXB28V560J	RESISTOR ARRAY	
R1216	EXB28V560J	RESISTOR ARRAY	
R1217	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1218	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1219	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1220	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1221	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1222	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1223	ERJ2GEJ560	M 560 OHM, 0.063W	
R1227	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1228	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1229	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1233	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1234	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1235	EXB28V102JX	RESISTOR ARRAY	
R1236	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1237	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1238	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1239	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1240	EXB28V102JX	RESISTOR ARRAY	
R1244	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1245	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1246	ERJ2GEJ220X	M 22 OHM, 0.063W	
R1247	ERJ2GEJ681X	M 680 OHM, 0.063W	
R1248	ERJ2GEJ681X	M 680 OHM, 0.063W	
R1249	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1250	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1251	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1253	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1254	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1255	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1256	ERJ3GEYJ331V	M 330 OHM, J, 1/16W	
R1257	ERJ2GEJ560	M 560 OHM, 0.063W	
R1258	EXB28V560J	RESISTOR ARRAY	
R1259	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1260	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1263	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1264	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1265	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1266	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1267	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1268	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1269	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1270	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1272	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1273	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1274	EXB28V560J	RESISTOR ARRAY	
R1275	ERJ2GEJ560	M 560 OHM, 0.063W	
R1276	EXB28V560J	RESISTOR ARRAY	
R1277	EXB28V560J	RESISTOR ARRAY	
R1278	EXB28V560J	RESISTOR ARRAY	
R1279	EXB28V560J	RESISTOR ARRAY	
R1280	EXB28V560J	RESISTOR ARRAY	
R1281	EXB28V560J	RESISTOR ARRAY	
R1282	EXB28V560J	RESISTOR ARRAY	
R1283	EXB28V560J	RESISTOR ARRAY	
R1284	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1285	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	
R1286	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	
R1287	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	
R1288	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	
R1289	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	
R1290	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	
R1291	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1292	ERJ2GEJ3R9X	M 3.9 OHM, 0.063W	
R1293	ERJ2GEJ102X	M 1K OHM, 0.063W	
R1295	ERJ2GEJ101X	M 100 OHM, 0.063W	
R1297	ERJ3GEYJ331V	M 330 OHM, J, 1/16W	
R1298	EXB28V220J	RESISTOR ARRAY	
R1301	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1302	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1303	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	
R1304	ERJ3GEYJ103V	M 10KOHM, J, 1/16W	
R1305	ERJ3GEYJ105V	M 1M OHM, J, 1/16W	
R1306	EXB28V220J	RESISTOR ARRAY	
R1307	ERJ3EKF1002V	M 10KOHM, 1/16W	
R1308	ERJ3EKF1002V	M 10KOHM, 1/16W	
R1309	ERJ3EKF1691	RESISTOR	
R1310	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1314	ERJ3GEYJ221V	RESISTOR	
R1315	EXB28V102JX	RESISTOR ARRAY	
R1317	ERJ3GEYJ103V	M 10KOHM, J, 1/16W	
R1324	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	
R1325	ERJ2GEJ223X	RESISTOR	
R1347	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1348	ERJ2GEJ101X	M 100 OHM, 0.063W	
R1355	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1363	ERJ2GEJ562X	M5.6K OHM, 0.063W	
R1364	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1365	ERJ6GEYJ100V	M 10 OHM, J, 1/10W	
R1367	ERJ2GEJ562X	M5.6K OHM, 0.063W	
R1368	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1369	ERJ2GEJ560	M 560 OHM, 0.063W	
R1370	ERJ6GEYJ100V	M 10 OHM, J, 1/10W	
R1375	ERJ6GEYJ560V	M 56 OHM, J, 1/10W	
R1381	ERJ3EKF2202	RESISTOR	
R1383	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1389	ERJ2GEJ333X	RESISTOR	
R1402	ERJ2GEJ101X	M 100 OHM, 0.063W	
R1414	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1415	ERJ3EKF2202	RESISTOR	
R1418	ERJ3GEYJ151V	M 150 OHM, J, 1/16W	
R1444	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1460	ERJ6GEYJ122V	M 1.2KOHM, J, 1/10W	
R1461	ERJ3EKF1802	RESISTOR	
R1462	ERJ3EKF1002V	M 10KOHM, 1/16W	
R1465	ERJ3EKF2702V	RESISTOR	
R1505	ERJ3GEYJ104V	M 100KOHM, J, 1/16W	
R1506	ERJ3GEYJ104V	M 100KOHM, J, 1/16W	
R1507	ERJ3GEYJ104V	M 100KOHM, J, 1/16W	
R1512	ERJ3EKF1003V	M 100KOHM, 1/16W	
R1513	ERJ3EKF3902V	M 39K OHM, 1/16W	
R1517	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1518	ERJ3GEYJ151V	M 150 OHM, J, 1/16W	
R1539	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1553	ERJ3GEYJ103V	M 10KOHM, J, 1/16W	
R1566	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1570	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1572	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1574	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1577	ERJ2GE0R00X	M 0 OHM, 0.063W	
R1600	ERJ3GEYJ470V	M 47 OHM, J, 1/16W	
R1601	EXB28V560J	RESISTOR ARRAY	
R1602	EXB28V560J	RESISTOR ARRAY	
R1609	EXB28V560J	RESISTOR ARRAY	
R1610	EXB28V560J	RESISTOR ARRAY	
R1611	ERJ3GEYJ123V	RESISTOR	
R1614	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1616	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1617	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1623	ERJ2GEJ472X	M4.7K OHM, 0.063W	
R1624	ERJ3EKF5903	RESISTOR	
R1629	ERJ3GEYJ222V	M 2.2KOHM, J, 1/16W	
R1632	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1633	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1635	ERJ3GEYJ103V	M 10KOHM, J, 1/16W	
R1636	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1637	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1638	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	
R1639	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1641	ERJ3EKF5621	RESISTOR	
R1642	ERJ3EKF5621	RESISTOR	
R1643	ERJ3EKF1101	RESISTOR	
R1644	ERJ3EKF1101	RESISTOR	
R1645	ERJ3EKF1101	RESISTOR	
R1646	ERJ3GEYJ124V	M 120KOHM, J, 1/16W	
R1653	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R1654	ERJ3EKF3923	RESISTOR	
R1655	ERJ3EKF3923	RESISTOR	
R1656	ERJ3EKF3923	RESISTOR	
R1657	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1658	ERJ3GEYJ105V	M 1M OHM, J, 1/16W	
R1661	EXB28V560J	RESISTOR ARRAY	
R1663	EXB28V560J	RESISTOR ARRAY	
R1667	ERJ3GEYJ510	RESISTOR	
R1668	ERJ3GEYJ510	RESISTOR	
R1671	ERJ3GEYJ391V	M 390 OHM, J, 1/16W	
R1673	ERJ3GEYJ561V	M 560 OHM, J, 1/16W	
R1679	ERJ3GEYJ220V	M 22 OHM, J, 1/16W	
R1682	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1683	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1692	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1693	ERJ2GEJ101X	M 100 OHM, 0.063W	
R1696	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R1697	ERJ2GEJ101X	M 100 OHM, 0.063W	
R1706	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R1707	EXB28V560J	RESISTOR ARRAY	
R1708	EXB28V560J	RESISTOR ARRAY	
R1709	EXB28V560J	RESISTOR ARRAY	
R1710	EXB28V560J	RESISTOR ARRAY	
R1711	EXB28V560J	RESISTOR ARRAY	
R1712	EXB28V560J	RESISTOR ARRAY	
R1713	EXB28V560J	RESISTOR ARRAY	
R1714	ERJ2GEJ560	M 560 OHM, 0.063W	
R1715	ERJ2GEJ560	M 560 OHM, 0.063W	
R1717	ERJ3GEY0R00V	M 0 OHM, J, 1/16W	
R1720	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1721	ERJ2GEJ103X	M 10K OHM, 0.063W	
R1726	EXB28V220J	RESISTOR ARRAY	
R1727	EXB28V220J	RESISTOR ARRAY	
R1728	EXB28V220J	RESISTOR ARRAY	
R1729	EXB28V220J	RESISTOR ARRAY	
R1730	EXB28V220J	RESISTOR ARRAY	
R1731	EXB28V220J	RESISTOR ARRAY	
R1732	EXB28V220J	RESISTOR ARRAY	
R1733	EXB28V220J	RESISTOR ARRAY	
R1734	EXB28V220J	RESISTOR ARRAY	
R1735	EXB28V220J	RESISTOR ARRAY	
R2001	ERJ3EKF5601V	RESISTOR	
R2002	ERJ3EKF1871V	RESISTOR	
R2003	ERJ3EKF3741	RESISTOR	
R2004	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R2005	ERJ3EKF1132	RESISTOR	
R2007	ERJ3EKF5601V	RESISTOR	
R2008	ERJ3EKF1871V	RESISTOR	
R2009	ERJ3EKF3741	RESISTOR	
R2016	EXB28VR000X	RESISTOR	
R2019	ERJ3GEYJ331V	M 330 OHM, J, 1/16W	
R2020	ERJ3GEYJ331V	M 330 OHM, J, 1/16W	
R2021	ERJ3GEYJ331V	M 330 OHM, J, 1/16W	
R2022	ERJ3GEYJ182V	M 1.8KOHM, J, 1/16W	
R2023	ERJ3GEYJ102V	M 1K OHM, J, 1/16W	
R2024	ERJ3GEYJ470V	M 47 OHM, J, 1/16W	
R2201	EXB38V220J	RESISTOR	
R3401	ERJ6ENF75R0V	M 75 OHM, 1/10W	PT-AE900U
	ERJ6GEYJ750V	M 75 OHM, 1/10W	PT-AE900E
R3402	ERJ6ENF75R0V	M 75 OHM, 1/10W	PT-AE900U
	ERJ6GEYJ750V	M 75 OHM, 1/10W	PT-AE900E
R3403	ERJ6ENF75R0V	M 75 OHM, 1/10W	
R3404	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R3405	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	
R3406	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	PT-AE900U
	ERJ3GEYJ153V	M 15KOHM, J, 1/16W	PT-AE900E
R3407	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	PT-AE900U
R3408	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	PT-AE900U
R3409	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	PT-AE900U
	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	PT-AE900E
R3410	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	PT-AE900U
	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	PT-AE900E
R3411	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	PT-AE900U
R3412	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	
R3413	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R3414	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	PT-AE900U
	ERJ3GEYJ101V	M 100 OHM, J, 1/16W	PT-AE900E
R3415	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	
R3416	ERJ3GEYJ103V	M 10KOHM, J, 1/16W	PT-AE900E
R3417	ERJ3GEYJ473V	M 47KOHM, J, 1/16W	PT-AE900U
	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	PT-AE900E
R3418	ERJ6ENF75R0V	M 75 OHM, 1/10W	PT-AE900E
R3419	ERJ6ENF75R0V	M 75 OHM, 1/10W	PT-AE900E
R3420	ERJ3GEYJ472V	M 4.7KOHM, J, 1/16W	PT-AE900E
R3421	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	PT-AE900E
R3422	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	PT-AE900E
R3423	ERJ3GEYJ562V	M 5.6KOHM, J, 1/16W	PT-AE900E
R3424	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	PT-AE900E
R3425	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	PT-AE900E
R3426	ERJ3GEYJ471V	M 470 OHM, J, 1/16W	PT-AE900E
R3427	ERJ3GEYJ560V	M 56 OHM, J, 1/16W	PT-AE900E
R9601	ERX2SJR47E	M 0.47OHM, J, 2W	
R9630	ERJ14YJ3R3U	M 3.3 OHM, J, 1/4W	
R9631	ERJ8GEYJ220V	M 22 OHM, J, 1/8W	
R9632	ERJ14YJ5R6U	M 5.6 OHM, J, 1/4W	
R9633	ERJ8GEYJ100V	M 10 OHM, J, 1/8W	
R9634	ERJ8GEYJ120	M 12 OHM, J, 1/8W	
R9636	ERJ14YJ3R3U	M 3.3 OHM, J, 1/4W	
R9637	ERJ8GEYJ220V	M 22 OHM, J, 1/8W	
R9638	ERJ14YJ5R6U	M 5.6 OHM, J, 1/4W	
R9639	ERJ8GEYJ100V	M 10 OHM, J, 1/8W	
R9640	ERJ8GEYJ120	M 12 OHM, J, 1/8W	
R9653	D0XGR22KA001	RESISTOR	
[CAPACITORS]			
C001	ECQU2A104MLA	CAPACITOR	△
C002	F1BAH4710004	CAPACITOR	△
C003	F1BAH4710004	CAPACITOR	△
C004	ECA2WHG3R3	CAPACITOR	
C005	F1A3A220A046	CAPACITOR	
C006	F1K2J222A028	CAPACITOR	
C007	ECJ1VB1H102K	CAPACITOR	
C008	F1H1H104A748	CAPACITOR	
C009	F2A1V330A751	CAPACITOR	
C010	F1BAH4710004	CAPACITOR	△
C011	F2A1C221B009	CAPACITOR	
C012	F1H1H104A748	CAPACITOR	
C013	F2A1C221B009	CAPACITOR	
C014	F1H1H104A748	CAPACITOR	
C015	F1H1H104A748	CAPACITOR	
C016	F1H1H104A748	CAPACITOR	
C1001	F2G0J3300014	CAPACITOR	
C1002	F2G1A101A029	CAPACITOR	
C1003	ECJ0EB1C103K	C 0.01UF, 16V	
C1004	F2G0J3300014	CAPACITOR	
C1005	ECJ0EB1C103K	C 0.01UF, 16V	
C1006	F2G0J3300014	CAPACITOR	
C1008	ECJ0EB1C103K	C 0.01UF, 16V	
C1009	F2G0J3300014	CAPACITOR	
C1010	ECJ0EB1C103K	C 0.01UF, 16V	
C1011	ECJ0EB1C103K	C 0.01UF, 16V	
C1012	ECJ0EB1H102K	C 1000PF, 50V	
C1013	ECJ0EB1H102K	C 1000PF, 50V	
C1014	F2G0J3300014	CAPACITOR	
C1022	ECJ1VF1A225Z	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1023	ECJ1VF1A225Z	CAPACITOR	
C1030	ECJ0EF1C104Z	C 0.1UF, 16V	
C1031	F2G0J4700010	CAPACITOR	
C1032	ECJ0EF1C104Z	C 0.1UF, 16V	
C1033	ECJ1VB1C393K	CAPACITOR	
C1043	ECJ1VF1A225Z	CAPACITOR	
C1044	ECJ1VB0J824K	CAPACITOR	
C1045	ECJ2FF1A106Z	C 10UF, 10V	
C1046	ECJ0EF1C104Z	C 0.1UF, 16V	
C1047	ECJ0EF1C104Z	C 0.1UF, 16V	
C1048	ECJ2FF1A106Z	C 10UF, 10V	
C1049	ECJ0EF1C104Z	C 0.1UF, 16V	
C1050	ECJ0EF1C104Z	C 0.1UF, 16V	
C1051	ECJ0EF1C104Z	C 0.1UF, 16V	
C1052	ECJ0EF1C104Z	C 0.1UF, 16V	
C1053	ECJ0EB1C103K	C 0.01UF, 16V	
C1054	ECJ2FF1A106Z	C 10UF, 10V	
C1055	ECJ2FF1A106Z	C 10UF, 10V	
C1056	ECJ0EF1C104Z	C 0.1UF, 16V	
C1057	ECJ0EF1C104Z	C 0.1UF, 16V	
C1058	ECJ0EF1C104Z	C 0.1UF, 16V	
C1059	ECJ0EB1C103K	C 0.01UF, 16V	
C1060	EEH0B0G101R	E 100UF, 4V	
C1061	ECJ0EF1C104Z	C 0.1UF, 16V	
C1062	ECJ0EF1C104Z	C 0.1UF, 16V	
C1063	ECJ0EF1C104Z	C 0.1UF, 16V	
C1064	ECJ0EF1C104Z	C 0.1UF, 16V	
C1065	ECJ0EF1C104Z	C 0.1UF, 16V	
C1066	ECJ0EF1C104Z	C 0.1UF, 16V	
C1067	ECJ0EF1C104Z	C 0.1UF, 16V	
C1068	ECJ0EF1C104Z	C 0.1UF, 16V	
C1069	ECJ0EF1C104Z	C 0.1UF, 16V	
C1070	ECJ0EF1C104Z	C 0.1UF, 16V	
C1071	ECJ0EF1C104Z	C 0.1UF, 16V	
C1072	ECJ0EF1C104Z	C 0.1UF, 16V	
C1074	ECJ0EF1C104Z	C 0.1UF, 16V	
C1075	ECJ0EF1C104Z	C 0.1UF, 16V	
C1076	ECJ0EB1H102K	C 1000PF, 50V	
C1079	ECJ1VB1C823K	C 0.82UF, 16V	
C1080	ECJ0EB1C103K	C 0.01UF, 16V	
C1081	ECJ0EF1C104Z	C 0.1UF, 16V	
C1082	ECJ0EB1H102K	C 1000PF, 50V	
C1083	EEH0B0G101R	E 100UF, 4V	
C1084	F2G1C2200010	CAPACITOR	
C1085	ECJ0EB1C103K	C 0.01UF, 16V	
C1087	ECJ0EF1C104Z	C 0.1UF, 16V	
C1090	ECJ0EF1C104Z	C 0.1UF, 16V	
C1091	ECJ0EF1C104Z	C 0.1UF, 16V	
C1094	ECJ0EF1C104Z	C 0.1UF, 16V	
C1095	ECJ0EF1C104Z	C 0.1UF, 16V	
C1096	ECJ0EF1C104Z	C 0.1UF, 16V	
C1100	ECJ0EF1C104Z	C 0.1UF, 16V	
C1101	ECJ0EF1C104Z	C 0.1UF, 16V	
C1102	EEFCD0D101R	CAPACITOR	
C1103	F2G1C2200010	CAPACITOR	
C1104	ECJ0EF1C104Z	C 0.1UF, 16V	
C1105	ECJ0EF1C104Z	C 0.1UF, 16V	
C1106	EEH0B0G101R	E 100UF, 4V	
C1107	ECJ0EF1C104Z	C 0.1UF, 16V	
C1108	ECJ0EF1C104Z	C 0.1UF, 16V	
C1109	ECJ0EF1C104Z	C 0.1UF, 16V	
C1110	ECJ0EF1C104Z	C 0.1UF, 16V	
C1111	ECJ0EF1C104Z	C 0.1UF, 16V	
C1112	ECJ0EF1C104Z	C 0.1UF, 16V	
C1113	ECJ0EF1C104Z	C 0.1UF, 16V	
C1114	ECJ1VF1A225Z	CAPACITOR	
C1116	ECJ0EF1C104Z	C 0.1UF, 16V	
C1117	F2G1C2200010	CAPACITOR	
C1118	ECJ0EF1C104Z	C 0.1UF, 16V	
C1119	ECJ1VC1H331J	CAPACITOR	
C1120	ECJ0EF1C104Z	C 0.1UF, 16V	
C1121	ECJ0EF1C104Z	C 0.1UF, 16V	
C1122	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1123	ECJ0EF1C104Z	C 0.1UF, 16V	
C1124	ECJ0EF1C104Z	C 0.1UF, 16V	
C1125	ECJ0EF1C104Z	C 0.1UF, 16V	
C1126	ECJ0EF1C104Z	C 0.1UF, 16V	
C1127	ECJ0EF1C104Z	C 0.1UF, 16V	
C1128	ECJ0EF1C104Z	C 0.1UF, 16V	
C1129	ECJ0EF1C104Z	C 0.1UF, 16V	
C1130	ECJ0EF1C104Z	C 0.1UF, 16V	
C1132	ECJ0EF1C104Z	C 0.1UF, 16V	
C1133	ECJ0EF1C104Z	C 0.1UF, 16V	
C1134	ECJ0EF1C104Z	C 0.1UF, 16V	
C1135	ECJ0EF1C104Z	C 0.1UF, 16V	
C1137	EEH80G101R	E 100UF, 4V	
C1138	ECJ0EF1C104Z	C 0.1UF, 16V	
C1139	ECJ0EB1H102K	C 1000PF, 50V	
C1140	ECJ0EB1H102K	C 1000PF, 50V	
C1141	ECJ1VF1A225Z	CAPACITOR	
C1142	ECJ0EB1H102K	C 1000PF, 50V	
C1143	ECJ0EF1C104Z	C 0.1UF, 16V	
C1144	ECJ1VC1H100C	C 10PF, 50V	
C1145	ECJ1VC1H100C	C 10PF, 50V	
C1146	ECJ0EF1C104Z	C 0.1UF, 16V	
C1147	ECJ0EB1H102K	C 1000PF, 50V	
C1148	ECJ0EF1C104Z	C 0.1UF, 16V	
C1149	ECJ0EF1C104Z	C 0.1UF, 16V	
C1150	ECJ0EF1C104Z	C 0.1UF, 16V	
C1151	EEH80G101R	E 100UF, 4V	
C1152	ECJ0EB1H102K	C 1000PF, 50V	
C1153	ECJ0EF1C104Z	C 0.1UF, 16V	
C1154	ECJ0EF1C104Z	C 0.1UF, 16V	
C1155	ECJ0EB1C103K	C 0.01UF, 16V	
C1156	ECJ0EF1C104Z	C 0.1UF, 16V	
C1157	ECJ0EF1C104Z	C 0.1UF, 16V	
C1158	ECJ0EF1C104Z	C 0.1UF, 16V	
C1159	ECJ0EF1C104Z	C 0.1UF, 16V	
C1160	ECJ0EF1C104Z	C 0.1UF, 16V	
C1161	ECJ0EF1C104Z	C 0.1UF, 16V	
C1162	ECJ0EF1C104Z	C 0.1UF, 16V	
C1163	ECJ0EF1C104Z	C 0.1UF, 16V	
C1164	ECJ0EF1C104Z	C 0.1UF, 16V	
C1165	ECJ0EF1C104Z	C 0.1UF, 16V	
C1166	ECJ0EF1C104Z	C 0.1UF, 16V	
C1167	ECJ0EF1C104Z	C 0.1UF, 16V	
C1168	ECJ0EF1C104Z	C 0.1UF, 16V	
C1169	ECJ0EF1C104Z	C 0.1UF, 16V	
C1170	ECJ0EF1C104Z	C 0.1UF, 16V	
C1171	ECJ0EB1C103K	C 0.01UF, 16V	
C1172	ECJ0EB1C103K	C 0.01UF, 16V	
C1173	ECJ0EB1C103K	C 0.01UF, 16V	
C1174	ECJ0EB1C103K	C 0.01UF, 16V	
C1175	ECJ0EB1C103K	C 0.01UF, 16V	
C1176	ECJ0EF1C104Z	C 0.1UF, 16V	
C1177	ECJ0EF1C104Z	C 0.1UF, 16V	
C1178	ECJ0EF1C104Z	C 0.1UF, 16V	
C1179	ECJ0EF1C104Z	C 0.1UF, 16V	
C1180	ECJ0EF1C104Z	C 0.1UF, 16V	
C1181	ECJ0EF1C104Z	C 0.1UF, 16V	
C1184	ECJ0EF1C104Z	C 0.1UF, 16V	
C1185	ECJ0EB1H102K	C 1000PF, 50V	
C1186	ECJ0EF1C104Z	C 0.1UF, 16V	
C1187	ECJ0EF1C104Z	C 0.1UF, 16V	
C1188	ECJ0EB1H102K	C 1000PF, 50V	
C1189	ECJ1VF1A225Z	CAPACITOR	
C1190	ECJ0EF1C104Z	C 0.1UF, 16V	
C1191	ECJ0EB1H102K	C 1000PF, 50V	
C1192	ECJ0EF1C104Z	C 0.1UF, 16V	
C1193	ECJ1VF1A225Z	CAPACITOR	
C1194	ECJ1VF1A225Z	CAPACITOR	
C1195	ECJ1VF1A225Z	CAPACITOR	
C1196	ECJ0EF1C104Z	C 0.1UF, 16V	
C1197	ECJ2FF1A106Z	C 10UF, 10V	
C1198	ECJ0EF1C104Z	C 0.1UF, 16V	
C1199	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1200	ECJ0EF1C104Z	C 0.1UF, 16V	
C1201	ECJ0EF1C104Z	C 0.1UF, 16V	
C1202	ECJ0EF1C104Z	C 0.1UF, 16V	
C1203	ECJ0EF1C104Z	C 0.1UF, 16V	
C1204	ECJ0EF1C104Z	C 0.1UF, 16V	
C1205	ECJ0EF1C104Z	C 0.1UF, 16V	
C1206	ECJ0EF1C104Z	C 0.1UF, 16V	
C1207	ECJ0EF1C104Z	C 0.1UF, 16V	
C1208	ECJ2FF1A106Z	C 10UF, 10V	
C1209	ECJ0EF1C104Z	C 0.1UF, 16V	
C1210	ECJ0EF1C104Z	C 0.1UF, 16V	
C1211	ECJ0EF1C104Z	C 0.1UF, 16V	
C1212	ECJ0EF1C104Z	C 0.1UF, 16V	
C1213	ECJ0EF1C104Z	C 0.1UF, 16V	
C1214	ECJ0EF1C104Z	C 0.1UF, 16V	
C1215	ECJ0EF1C104Z	C 0.1UF, 16V	
C1216	ECJ0EF1C104Z	C 0.1UF, 16V	
C1217	ECJ0EF1C104Z	C 0.1UF, 16V	
C1218	ECJ0EF1C104Z	C 0.1UF, 16V	
C1222	ECJ0EF1C104Z	C 0.1UF, 16V	
C1223	ECJ0EF1C104Z	C 0.1UF, 16V	
C1224	ECJ0EF1C104Z	C 0.1UF, 16V	
C1225	ECJ0EF1C104Z	C 0.1UF, 16V	
C1226	ECJ0EF1C104Z	C 0.1UF, 16V	
C1227	ECJ0EF1C104Z	C 0.1UF, 16V	
C1228	ECJ0EF1C104Z	C 0.1UF, 16V	
C1229	ECJ0EF1C104Z	C 0.1UF, 16V	
C1230	ECJ0EF1C104Z	C 0.1UF, 16V	
C1231	ECJ0EF1C104Z	C 0.1UF, 16V	
C1233	ECJ0EF1C104Z	C 0.1UF, 16V	
C1234	ECJ0EB1H102K	C 1000PF, 50V	
C1235	ECJ0EF1C104Z	C 0.1UF, 16V	
C1236	ECJ0EF1C104Z	C 0.1UF, 16V	
C1237	ECJ0EF1C104Z	C 0.1UF, 16V	
C1238	ECJ0EF1C104Z	C 0.1UF, 16V	
C1239	ECJ0EF1C104Z	C 0.1UF, 16V	
C1240	ECJ0EF1C104Z	C 0.1UF, 16V	
C1241	ECJ0EF1C104Z	C 0.1UF, 16V	
C1242	ECJ0EF1C104Z	C 0.1UF, 16V	
C1243	ECJ0EF1C104Z	C 0.1UF, 16V	
C1244	ECJ0EF1C104Z	C 0.1UF, 16V	
C1245	ECJ0EF1C104Z	C 0.1UF, 16V	
C1246	ECJ0EF1C104Z	C 0.1UF, 16V	
C1247	EEH80G101R	E 100UF, 4V	
C1249	ECJ0EF1C104Z	C 0.1UF, 16V	
C1250	ECJ0EF1C104Z	C 0.1UF, 16V	
C1251	ECJ0EF1C104Z	C 0.1UF, 16V	
C1252	ECJ0EF1C104Z	C 0.1UF, 16V	
C1253	ECJ0EF1C104Z	C 0.1UF, 16V	
C1254	ECJ0EF1C104Z	C 0.1UF, 16V	
C1255	ECJ0EF1C104Z	C 0.1UF, 16V	
C1256	ECJ0EF1C104Z	C 0.1UF, 16V	
C1257	ECJ0EF1C104Z	C 0.1UF, 16V	
C1258	ECJ0EF1C104Z	C 0.1UF, 16V	
C1259	ECJ0EF1C104Z	C 0.1UF, 16V	
C1260	ECJ0EF1C104Z	C 0.1UF, 16V	
C1261	ECJ0EF1C104Z	C 0.1UF, 16V	
C1262	ECJ0EF1C104Z	C 0.1UF, 16V	
C1263	ECJ0EF1C104Z	C 0.1UF, 16V	
C1315	ECJ0EF1C104Z	C 0.1UF, 16V	
C1317	ECJ0EF1C104Z	C 0.1UF, 16V	
C1348	ECJ0EF1C104Z	C 0.1UF, 16V	
C1349	ECJ0EF1C104Z	C 0.1UF, 16V	
C1370	ECJ0EF1C104Z	C 0.1UF, 16V	
C1371	F2G1E4R70007	CAPACITOR	
C1373	F2G1E4R70007	CAPACITOR	
C1374	F2G1A101A029	CAPACITOR	
C1375	EEH80G101R	E 100UF, 4V	
C1376	EEH80G101R	E 100UF, 4V	
C1430	ECJ0EF1C104Z	C 0.1UF, 16V	
C1431	ECJ0EF1C104Z	C 0.1UF, 16V	
C1432	ECJ0EF1C104Z	C 0.1UF, 16V	
C1433	F2G1E3300010	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1434	F2G1E3300010	CAPACITOR	
C1435	F2G1E3300010	CAPACITOR	
C1436	ECJ0EF1C104Z	C 0.1UF, 16V	
C1437	ECJ0EF1C104Z	C 0.1UF, 16V	
C1438	ECJ0EF1C104Z	C 0.1UF, 16V	
C1439	F2G1E3300010	CAPACITOR	
C1440	F2G1E3300010	CAPACITOR	
C1441	F2G1E3300010	CAPACITOR	
C1442	ECJ0EF1C104Z	C 0.1UF, 16V	
C1443	ECJ0EF1C104Z	C 0.1UF, 16V	
C1444	ECJ0EF1C104Z	C 0.1UF, 16V	
C1445	ECJ1VF1H333Z	C 0.033UF, 50V	
C1446	ECJ0EF1C104Z	C 0.1UF, 16V	
C1447	ECJ0EF1C104Z	C 0.1UF, 16V	
C1448	ECJ0EF1C104Z	C 0.1UF, 16V	
C1449	ECJ0EF1C104Z	C 0.1UF, 16V	
C1450	ECJ0EF1C104Z	C 0.1UF, 16V	
C1451	ECJ0EF1C104Z	C 0.1UF, 16V	
C1452	ECJ0EF1C104Z	C 0.1UF, 16V	
C1453	ECJ0EF1C104Z	C 0.1UF, 16V	
C1454	ECJ0EF1C104Z	C 0.1UF, 16V	
C1455	ECJ0EF1C104Z	C 0.1UF, 16V	
C1456	ECJ0EF1C104Z	C 0.1UF, 16V	
C1457	ECJ0EF1C104Z	C 0.1UF, 16V	
C1458	ECJ0EF1C104Z	C 0.1UF, 16V	
C1459	ECJ0EF1C104Z	C 0.1UF, 16V	
C1460	ECJ0EF1C104Z	C 0.1UF, 16V	
C1461	ECJ0EF1C104Z	C 0.1UF, 16V	
C1462	ECJ0EF1C104Z	C 0.1UF, 16V	
C1463	ECJ0EF1C104Z	C 0.1UF, 16V	
C1464	ECJ0EF1C104Z	C 0.1UF, 16V	
C1465	ECJ0EB1H102K	C 1000PF, 50V	
C1466	ECJ0EF1C104Z	C 0.1UF, 16V	
C1467	ECJ0EF1C104Z	C 0.1UF, 16V	
C1468	ECJ0EF1C104Z	C 0.1UF, 16V	
C1469	ECJ0EF1C104Z	C 0.1UF, 16V	
C1470	ECJ0EF1C104Z	C 0.1UF, 16V	
C1471	EEHBOG101R	E 100UF, 4V	
C1472	EEHBOG101R	E 100UF, 4V	
C1473	ECJ0EF1C104Z	C 0.1UF, 16V	
C1474	ECJ0EF1C104Z	C 0.1UF, 16V	
C1475	ECJ0EF1C104Z	C 0.1UF, 16V	
C1476	ECJ0EF1C104Z	C 0.1UF, 16V	
C1477	ECJ0EF1C104Z	C 0.1UF, 16V	
C1478	ECJ0EF1C104Z	C 0.1UF, 16V	
C1479	EEHBOG101R	E 100UF, 4V	
C1480	ECJ0EF1C104Z	C 0.1UF, 16V	
C1481	ECJ0EB1H102K	C 1000PF, 50V	
C1492	ECJ0EF1C104Z	C 0.1UF, 16V	
C1493	F2G0J3300014	CAPACITOR	
C1495	F2G1E3300010	CAPACITOR	
C1497	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1498	ECJ0EF1C104Z	C 0.1UF, 16V	
C1499	ECJ0EF1C104Z	C 0.1UF, 16V	
C1500	ECJ0EF1C104Z	C 0.1UF, 16V	
C1503	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1505	ECJ0EF1C104Z	C 0.1UF, 16V	
C1506	ECJ0EF1C104Z	C 0.1UF, 16V	
C1507	F2G1E3300010	CAPACITOR	
C1515	ECJ0EF1C104Z	C 0.1UF, 16V	
C1516	ECJ0EF1C104Z	C 0.1UF, 16V	
C1518	ECJ0EF1C104Z	C 0.1UF, 16V	
C1519	ECJ0EF1C104Z	C 0.1UF, 16V	
C1523	ECJ0EF1C104Z	C 0.1UF, 16V	
C1525	ECJ0EF1C104Z	C 0.1UF, 16V	
C1526	ECJ0EF1C104Z	C 0.1UF, 16V	
C1528	ECJ0EF1C104Z	C 0.1UF, 16V	
C1529	ECJ0EF1C104Z	C 0.1UF, 16V	
C1530	ECJ0EF1C104Z	C 0.1UF, 16V	
C1531	ECJ0EF1C104Z	C 0.1UF, 16V	
C1532	F2G1E3300010	CAPACITOR	
C1533	ECJ1VF1E105Z	CAPACITOR	
C1534	ECJ1VB1H152K	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1535	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1536	ECJ0EF1C104Z	C 0.1UF, 16V	
C1539	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1540	ECJ0EB1H102K	C 1000PF, 50V	
C1541	ECJ0EF1C104Z	C 0.1UF, 16V	
C1542	ECJ0EF1C104Z	C 0.1UF, 16V	
C1543	ECJ0EF1C104Z	C 0.1UF, 16V	
C1545	ECJ0EF1C104Z	C 0.1UF, 16V	
C1546	EEFCD0J470R	CAPACITOR	
C1547	ECJ1VC1H101J	C 100PF, J, 50V	
C1551	EEHBOG101R	E 100UF, 4V	
C1552	ECJ0EF1C104Z	C 0.1UF, 16V	
C1555	ECJ0EF1C104Z	C 0.1UF, 16V	
C1556	F2G1A3300007	CAPACITOR	
C1557	ECJ0EF1C104Z	C 0.1UF, 16V	
C1559	ECJ0EF1C104Z	C 0.1UF, 16V	
C1563	ECJ0EF1C104Z	C 0.1UF, 16V	
C1565	ECJ1VF1A225Z	CAPACITOR	
C1566	ECJ1VF1A225Z	CAPACITOR	
C1573	ECJ0EF1C104Z	C 0.1UF, 16V	
C1581	ECJ0EF1C104Z	C 0.1UF, 16V	
C1583	ECJ1VF1A225Z	CAPACITOR	
C1584	ECJ0EF1C104Z	C 0.1UF, 16V	
C1586	F2G0J3300014	CAPACITOR	
C1589	ECJ0EB1H102K	C 1000PF, 50V	
C1591	ECJ0EB1H102K	C 1000PF, 50V	
C1595	ECJ0EB1H102K	C 1000PF, 50V	
C1596	ECJ0EB1H102K	C 1000PF, 50V	
C1600	F2G0J3300014	CAPACITOR	
C1602	ECJ1VC1H221J	CAPACITOR	
C1603	ECJ0EB1H102K	C 1000PF, 50V	
C1604	ECJ0EF1C104Z	C 0.1UF, 16V	
C1605	F2G0J4700010	CAPACITOR	
C1607	ECJ1VF1C474Z	CAPACITOR	
C1608	ECJ1VF1C474Z	CAPACITOR	
C1610	ECJ1VF1E105Z	CAPACITOR	
C1611	ECJ1VF1E105Z	CAPACITOR	
C1612	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1613	ECJ1VF1E105Z	CAPACITOR	
C1614	ECJ1VF1E105Z	CAPACITOR	
C1615	ECJ1VF1E105Z	CAPACITOR	
C1616	ECJ1VF1E105Z	CAPACITOR	
C1618	ECJ1VB1H472K	C 4700PF, K, 50V	
C1619	ECJ2VB1C224K	CAPACITOR	
C1620	ECJ2VB1C224K	CAPACITOR	
C1623	ECJ1VB1H821K	CAPACITOR	
C1625	ECJ1VB1H332K	CAPACITOR	
C1626	ECJ0EF1C104Z	C 0.1UF, 16V	
C1627	ECJ1VF1A225Z	CAPACITOR	
C1628	ECJ0EB1H102K	C 1000PF, 50V	
C1629	ECJ0EF1C104Z	C 0.1UF, 16V	
C1630	F2G0J4700010	CAPACITOR	
C1631	ECJ0EF1C104Z	C 0.1UF, 16V	
C1633	ECJ1VF1A225Z	CAPACITOR	
C1635	ECJ1VF1A225Z	CAPACITOR	
C1636	ECJ0EB1H102K	C 1000PF, 50V	
C1637	ECJ1VF1A225Z	CAPACITOR	
C1638	ECJ1VF1A225Z	CAPACITOR	
C1639	ECJ0EB1H102K	C 1000PF, 50V	
C1640	ECJ0EB1H102K	C 1000PF, 50V	
C1641	ECJ1VF1A225Z	CAPACITOR	
C1642	ECJ0EB1H102K	C 1000PF, 50V	
C1643	ECJ0EB1H102K	C 1000PF, 50V	
C1644	ECJ1VF1A225Z	CAPACITOR	
C1645	ECJ1VF1A225Z	CAPACITOR	
C1647	ECJ1VF1A225Z	CAPACITOR	
C1649	ECJ0EB1H102K	C 1000PF, 50V	
C1654	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1655	ECJ1VF1A105Z	C 1UF, Z, 50V	
C1658	ECJ0EF1C104Z	C 0.1UF, 16V	
C1674	F2G1C1000013	CAPACITOR	
C2002	ECJ0EF1C104Z	C 0.1UF, 16V	
C2004	ECJ0EF1C104Z	C 0.1UF, 16V	

Ref. No.	Part No.	Part Name & Description	Remarks
C2005	ECJ3YF1C475Z	C 4.7UF, Z, 16V	
C3401	ECJ0EB1C103K	C 0.01UF, 16V	PT-AE900U
C3402	F2G0J3300014	CAPACITOR	PT-AE900U
	EEH80J330R	E 33UF, 6.3V	PT-AE900E
C3403	ECJ0EB1C103K	C 0.01UF, 16V	PT-AE900U
C3404	F2G0J3300014	CAPACITOR	PT-AE900U
C3405	ECJ0EB1C103K	C 0.01UF, 16V	
C3406	F2G0J3300014	CAPACITOR	PT-AE900U
	ECJ0EB1C103K	C 0.01UF, 16V	PT-AE900E
C3407	ECJ0EF1C104Z	C 0.1UF, 16V	PT-AE900U
	EEH80J330R	E 33UF, 6.3V	PT-AE900E
C3408	ECJ0EB1C103K	C 0.01UF, 16V	PT-AE900E
C3409	ECJ0EF1C104Z	C 0.1UF, 16V	PT-AE900E
C3410	EEH80J330R	E 33UF, 6.3V	PT-AE900E
C3411	EEH80J330R	E 33UF, 6.3V	PT-AE900E
C3412	ECJ0EF1C104Z	C 0.1UF, 16V	PT-AE900E
C9603	F0CZ4740002	CAPACITOR	
C9610	F0C2E1050002	CAPACITOR	
C9617	F0C3C4720003	CAPACITOR	
C9618	F0C2J1540004	CAPACITOR	
C9619	F0C2J1540004	CAPACITOR	
[OTHERS]			
A1	K1MN36BA0178	36P CONNECTOR	
A2	K1MN36BA0178	36P CONNECTOR	
A3	K1MN36BA0178	36P CONNECTOR	
A4	K1KA05BA0086	5P CONNECTOR	
A6	K1KA12BA0051	12P CONNECTOR	
A7	K1KA02BA0047	2P CONNECTOR	
A8	K1MN12B00070	12P CONNECTOR	
A9	K1KA03BA0014	3P CONNECTOR	
A10	K1KA02BA0047	2P CONNECTOR	
A15	K1KA03BA0047	3P CONNECTOR	
A16	K1KA03BA0047	3P CONNECTOR	
A17	K1KA03BA0047	3P CONNECTOR	
A20	K1KA03BA0047	3P CONNECTOR	
A21	K1KA10BA0087	10P CONNECTOR	
A23	K1KA09BA0086	9P CONNECTOR	
A24	K1KA09BA0014	9P CONNECTOR	
K1	K1KA02A00626	2P CONNECTOR	
K2	K1KA03A00546	3P CONNECTOR	
H1	K1KA09AA0200	9P CONNECTOR	
H2	K1MN06B00040	6P CONNECTOR	
CN001	K2AZ3B000002	INLET	△
HE2201	B4ABA0000009	HALL DEVICE	
F001	K5D502BNA005	FUSE	△
F001-1	EYF52BCY	FUSE	
F001-2	EYF52BCY	FUSE	
S01	K1MN12B00137	12P CONNECTOR	
S02	K1KA02BA0047	2P CONNECTOR	
S9602	A9BZ00000010	SPARK GAP	
JS1004	ERJ6GEY0R00V	RESISTOR	
JS1005	ERJ6GEY0R00V	RESISTOR	
JS1012	ERJ6GEY0R00V	RESISTOR	
JS1013	ERJ6GEY0R00V	RESISTOR	
JS1020	ERJ6GEY0R00V	RESISTOR	
JS1021	ERJ6GEY0R00V	RESISTOR	
JS1022	ERJ6GEY0R00V	RESISTOR	
JK1001	K1CB205B0007	TERMINAL	
JK1002	K2HA306B0103	TERMINAL	
JK1004	K1FA119E0003	TERMINAL	
JK1005	K1FB115B0102	TERMINAL	
JK1006	K1CB108B0057	TERMINAL	
JK3401	K2HA306B0103	TERMINAL	PT-AE900U
	K1HB121B0007	TERMINAL	PT-AE900E
PC001	B3PAA0000478	PHOTO COUPLER	
RM2001	B3RAD0000102	REMOTE CONTROL RECEIVER	
SW001	K0AAKA000014	SWITCH	
SW2001	EVQPLHA15	SWITCH	
SW2002	EVQPLHA15	SWITCH	
SW2003	EVQPLHA15	SWITCH	
SW2004	EVQPLHA15	SWITCH	

Ref. No.	Part No.	Part Name & Description	Remarks
SW2005	EVQPLHA15	SWITCH	
SW2006	EVQPLHA15	SWITCH	
SW2007	EVQPLHA15	SWITCH	
SW2008	EVQPLHA15	SWITCH	
SW9601	T115AR3U3	SWITCH	△
T001	G4DYA0000009	TRANS	△
T9604	G4F2A0000001	TRANS	△
X1001	H0J270500105	CRYSTAL	
X1005	H0J829400001	CRYSTAL	
Z001	ERZV10D471	VARISTOR	△
ZA001	K9ZZ00000424	EARTH LUG	
ZA3402	TJC6137	LUG TERMINAL	PT-AE900U
	TJEA090	LUG TERMINAL	PT-AE900E
ZD001	MAZ805600L	DIODE	
RTL	TXANP01VKB4	CIRCUIT BOARD A	
RTL	TNPA3753	CIRCUIT BOARD H	
RTL	TNPA3712	CIRCUIT BOARD J	PT-AE900U
	TNPA3417AB	CIRCUIT BOARD J	PT-AE900E
RTL	TXANP01QAZZ	CIRCUIT BOARD K	PT-AE900U
	TXANP01QBAZ	CIRCUIT BOARD K	PT-AE900E
RTL	TNPA3711	CIRCUIT BOARD S	
	TXANP02VKB4	BALLAST UNIT ASSY	
	ETXMM592MBH	CIRCUIT BOARD P	